Self Diagnosis Supported model

SERVICE MANUAL

DX-1A CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KV-40XBR700	*RM-Y184*	*US*	*SCC-S47G-A*
KV-40XBR700	*RM-Y184*	*CND*	*SCC-S48E-A*

KV-40XBR700

RM-Y184

TRINITRON® COLOR TELEVISION

SONY®

9-965-919-01

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SPECIFICATIONS

	KV-40XBR700
Power requirements	120V, 60 Hz
Number of inputs/outputs	
Video [1]	4
S Video [2]	3
Audio [3]	6
Audio Out [4]	1
Y, P_B, P_R [5]	2
Monitor Out	1
Control-S (in/out)	YES
Speaker output(W)	7.5W x 2 15W Subwoofer
Power Consumption(W)	
In use(Max)	245W
In standby	2W
Dimensions(W/H/D)	
(mm)	1093 x 836 x 665 mm
(in)	$43\ ^1/_8$ x 33 x $26\ ^1/_8$ in
Mass	
(kg)	138 kg
(lbs)	304 lbs.

1) 1 Vp-p 75 ohms unbalanced, sync negative
2) Y: 1 Vp-p 75 ohms unbalanced, sync negative
   C: 0.286 Vp-p (Burst signal), 75 ohms
3) More than 408 mVrms at the maximum volume setting (variable)
   More than 408 mVrms (fix)
4) 500 mVrms (100% modulation), Impedance: 47 kilohms
5) Y: 1.0 Vp-p, 75 ohms, sync negative;
   PB: 0.7 Vp-p, 75 ohms
   PR: Vp-p, 75 ohms

Television system
American TV standard, NTSC

Channel coverage
VHF: 2-13/ UHF: 14-69/ CATV: 1-125

Picture tube
FD Trinitron® tube

Visible screen size
38-inch picture measured diagonally

Actual screen size
40-inch measured diagonally

Antenna
75 ohm external terminal for VHF/UHF

Supplied Accessories
Remote Commander RM-Y184
Two Size AA (R6) Batteries

Optional Accessories
Connecting cables: VMC-10/30HG, VMC-810S/820/830HGS, VMC-810S/820S, RKG69HG, RKC-515HG
TV Stand: SV-40XBR7

Design and specifications are subject to change without notice.

XBR
TruSurround™ by SRS ®

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SRS (SOUND RETRIEVAL SYSTEM)

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WARNINGS AND CAUTIONS

CAUTION

Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield, or carbon painted on the CRT, after removing the anode.

WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the AC power line.

⚠ SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and ⚠ mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. Replace these components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.

ATTENTION!!

Apres avoir deconnecte le cap de l'anode, court-circuiter l'anode du tube cathodique et celui de l'anode du cap au chassis metallique de l'appareil, ou la couche de carbone peinte sur le tube cathodique ou au blindage du tube cathodique.

Afin d'eviter tout risque d'electrocution provenant d'un châssis sous tension, un transformateur d'isolement doit etre utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.

⚠ ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

Les composants identifies par une trame et par une marque ⚠ sur les schemas de principe, les vues explosees et les listes de pieces sont d'une importance critique pour la securite du fonctionnement. Ne les remplacer que par des composants Sony dont le numero de piece est indique dans le present manuel ou dans des supplements publies par Sony. Les reglages de circuit dont l'importance est critique pour la securite du fonctionnement sont identifies dans le present manuel. Suivre ces procedures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement suspecte.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.

2. Check the interboard wiring to ensure that no wires are "pinched" or touching high-wattage resistors.

3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.

4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.

5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.

6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.

7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.

8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.

2. A battery-operated AC milliampmeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

How to Find a Good Earth Ground

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

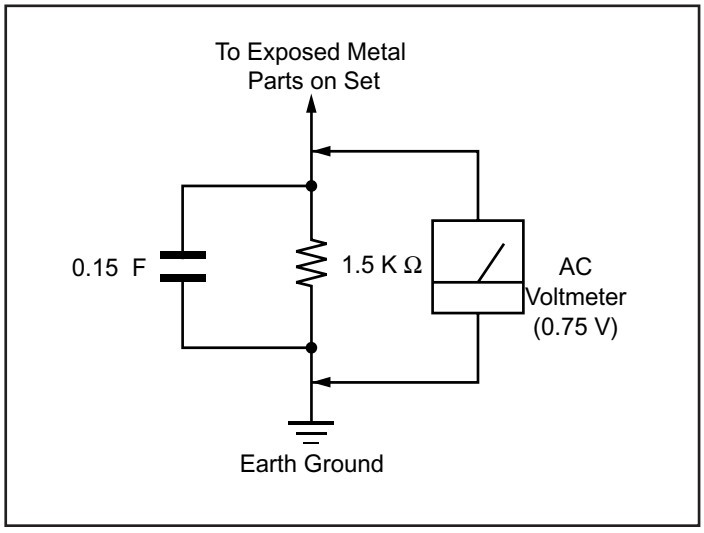


Figure A. Using an AC voltmeter to check AC leakage.

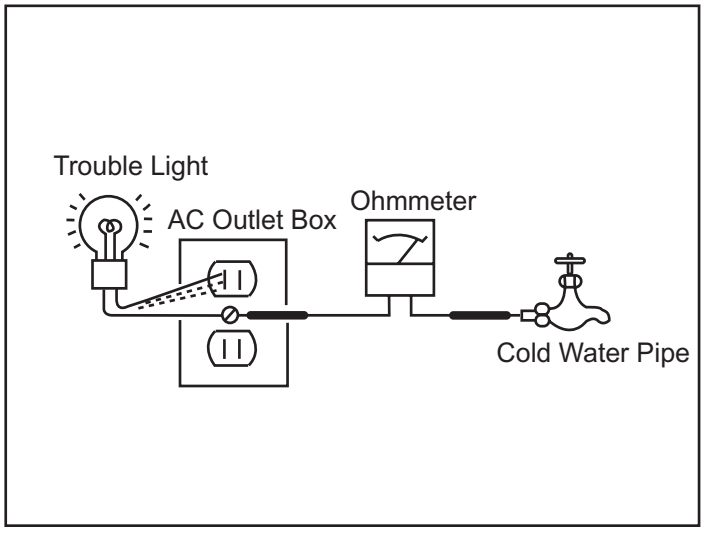


Figure B. Checking for earth ground.

SELF-DIAGNOSTIC FUNCTION

Self Diagnosis Supported model

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/STEREO LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY/STEREO LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the Remote Commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

Diagnostic Test Indicators

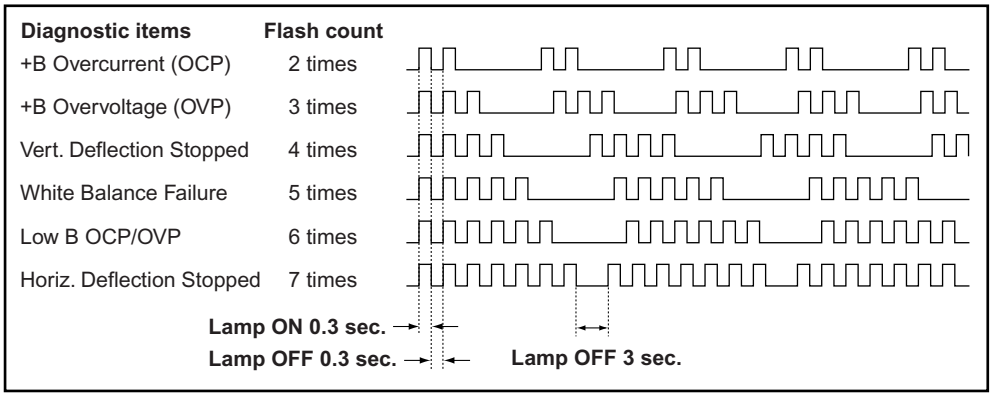
When an error occurs, the STANDBY/STEREO LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.

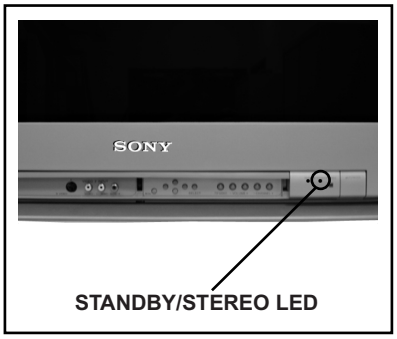
Results for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

Diagnostic Item	No. of times STANDBY/ STEREO lamp flashes	Display Result	Probable Cause Location	Detected Symptoms
Power does not turn on	Does not light		• Power cord is not plugged in. • Fuse is burned out F6001 (A Board).	• Power does not come on. • No power is supplied to the TV. • AC power supply is faulty.
+B Overcurrent (OCP) (See Note 1)	2 times	2:0 or 2:1	• H.OUT (Q5030) is shorted (D Board). • +B PWM (Q5003) is shorted (D Board). • IC9001, IC9002, IC9003 is shorted (C Board).	• Power does not come on. • Load on power line is shorted.
+B Overvoltage (OVP)	3 times	3:0 or 3:1	• IC6505 is faulty (D Board).	• Has entered standby mode.
Vertical Deflection Stopped	4 times	4:0 or 4:1	• ± 15V is not supplied (D Board). • IC5004 is faulty (D Board).	• Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
White Balance Failure (not balanced)	5 times	5:0 or 5:1	• Video OUT (IC9001-IC9003) is faulty (C Board). • CRT drive (IC201) is faulty (A Board). • G2 is improperly adjusted (See Note 2).	• No raster is generated. • CRT Cathode current detection reference pulse output is small.
LOW B OCP/OVP (overcurrent/overvoltage) (See Note 3)	6 times	6:0 or 6:1	• +5 line is overloaded (A, B Boards). • +5 line is shorted (A, B Boards). • IC6007 is faulty (A Board).	• No picture.
Horizontal Deflection Stopped	7 times	7:0 or 7:1		• No picture.

Note 1: If a +B Overcurrent is detected, stoppage of the Vertical Deflection is detected simultaneously. The symptom that is diagnosed first by the microcontroller is displayed on screen.
Note 2: Refer to Screen (G2) Adjustment in Section 2-5. of this manual.
Note 3: If STANDBY/STEREO LED flashes six (6) times, unplug the unit and wait 10 seconds before performing the adjustment.

Display of STANDBY/STEREO LED Flash Count


Diagnostic items
Flash count
+B Overcurrent (OCP) 2 times
+B Overvoltage (OVP) 3 times
Vert. Deflection Stopped 4 times
White Balance Failure 5 times
Low B OCP/OVP 6 times
Horiz. Deflection Stopped 7 times
Lamp ON 0.3 sec.
Lamp OFF 0.3 sec.
Lamp OFF 3 sec.



* One flash count is not used for self-diagnostic.

Stopping the STANDBY/STEREO LED Flash

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/STEREO LAMP from flashing.

Self-Diagnostic Screen Display

For errors with symptoms such as "power sometimes shuts off" or "screen sometimes goes out" that cannot be confirmed, it is possible to bring up past occurrences of failure on the screen for confirmation.

To Bring Up Screen Test

In standby mode, press buttons on the Remote Commander sequentially, in rapid succession, as shown below:

DISPLAY ➡ Channel 5 ➡ Sound volume - ➡ Power ON.

SELF DIAGNOSIS	
2: +B OCP	N/A
3: +B OVP	N/A
4: V STOP	0
5: AKB	1
6: LOWB	0
7: H-STOP	0
101: WDT	24

Numeral "0" means that no fault was detected.

Numeral "1" means a fault was detected one time only.

Handling of Self-Diagnostic Screen Display

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to "0".

Unless the result display is cleared to "0", the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

Clearing the Result Display

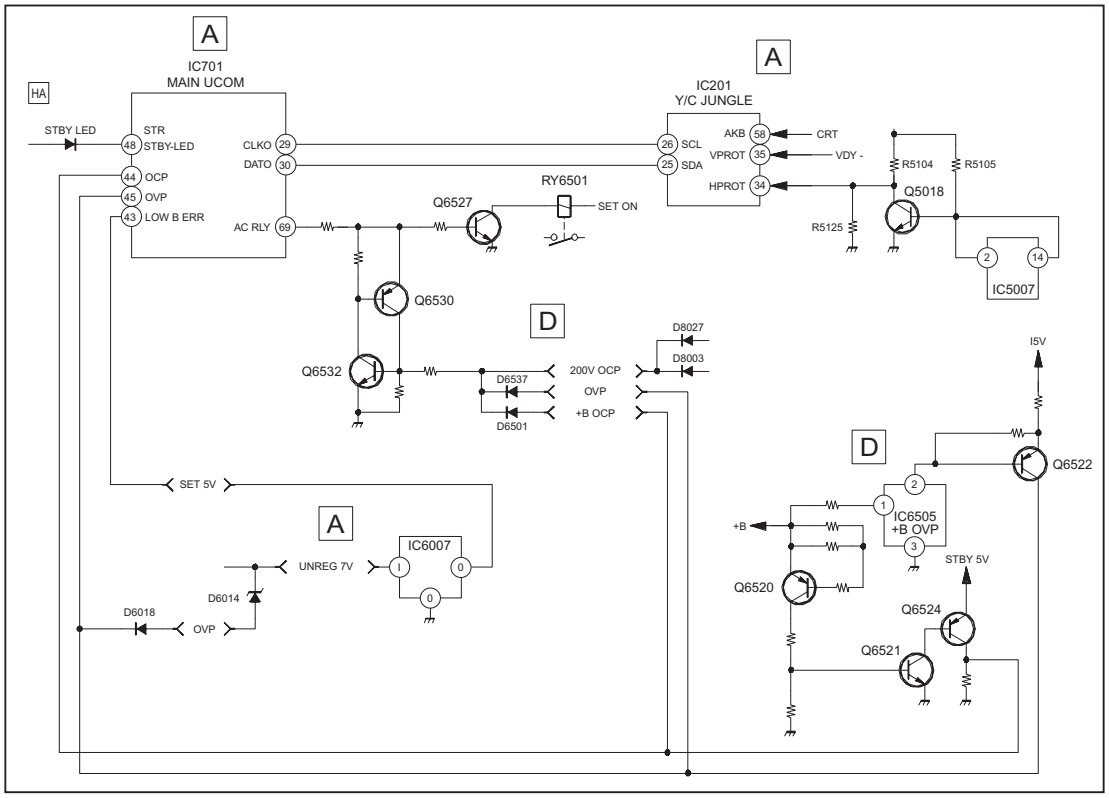
To clear the result display to "0", press buttons on the Remote Commander sequentially when the diagnostic screen is displayed, as shown below:

Channel 8 ➡ ENTER

Quitting the Self-Diagnostic Screen

To quit the entire self-diagnostic screen, turn off the power switch on the Remote Commander or the main unit.

Self-Diagnostic Circuit



+B Overcurrent (OCP)

Occurs when an overcurrent (more than 6A) on the +B (135V) line is detected by R6598/R6591. It will cause Q6520 to turn on and force the AC relay to turn off through Q6532 and Q6530.

+B Overvoltage (OVP)

Occurs when 1) overvoltage (more than +140V) on the +B (135V) line is detected by IC6505, or 2) an overvoltage (more than 7.5 V) on the unreg 7V line is detected by D6014. The AC relay will turn off through Q6532 and Q6530.

Vertical Deflection Stopped

Occurs when an absence of the vertical deflection pulse is detected by IC201. Power supply will shut down when waveform interval exceeds 2 seconds.

White Balance Failure

If the RGB levels* do not balance within 2 seconds after the power is turned on, this error will be detected by IC201. TV will stay on, but there will be no picture.

*(Refers to the RGB levels of the AKB detection Ref pulse that detects 1K).

Low B OCP/OVP Error

Occurs when set 5V is out.

Horizontal Deflection Stopped

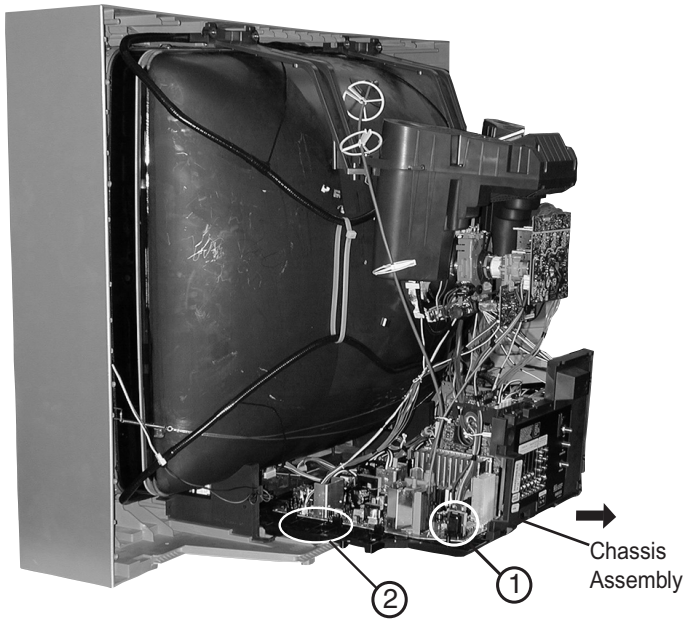
Occurs when either: 1) a +B overcurrent is detected (IC5007), or 2) overheating is detected (Thermistor TH5002).

SECTION 1: DISASSEMBLY

1-1. REAR COVER REMOVAL

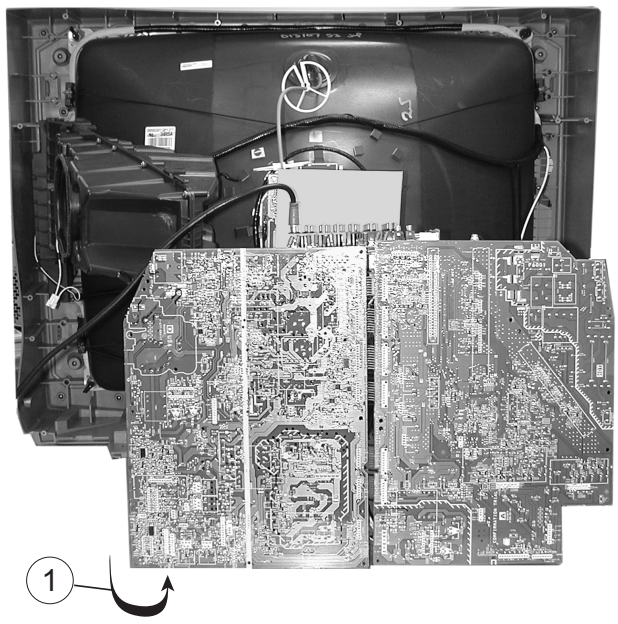
Remove 22 (+BVTP 4x16) screws from areas indicated with a circle or line.

1-2. CHASSIS ASSEMBLY REMOVAL



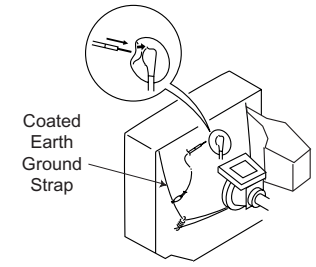
1. **CAUTION!** - Heat sink on IC5004 is -15V. Care must be taken not to allow heat sink to touch any other components.
2. Gently pull the chassis assembly away from the bezel.

1-3. SERVICE POSITION



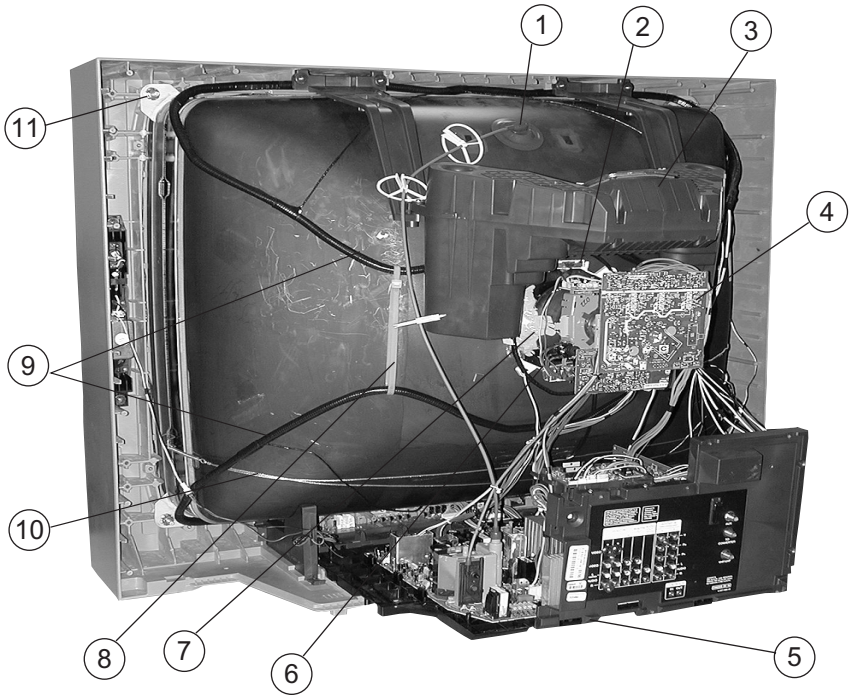
1. Pull up and rotate both the A and D Boards in order to service the unit.

1-4. PICTURE TUBE REMOVAL



WARNING: BEFORE REMOVING THE ANODE CAP
High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.

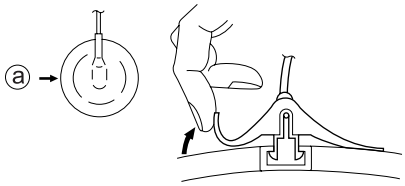
1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the deflection yoke, neck assembly, degaussing coils and CRT grounding strap.
3. Remove the Speaker Assemblies.
4. Remove the C Board from the CRT.
5. Remove the chassis assembly.
6. Loosen the neck assembly fixing screw and remove.
7. Loosen the deflection yoke fixing screw and remove.
8. Place the set with the CRT face down on a cushion and remove the degaussing coil holders.
9. Remove the degaussing coils.
10. Remove the CRT grounding strap and spring tension devices.
11. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT [Take care not to handle the CRT by the neck].



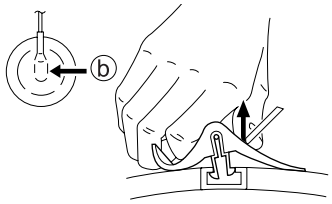
ANODE CAP REMOVAL PROCEDURE

WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT **before** attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.
NOTE: After removing the anode cap, short circuit the anode of the picture tube and the anode cap to either the metal chassis, CRT shield, or carbon painted on the CRT.

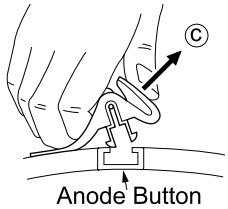
REMOVAL PROCEDURES



Turn up one side of the rubber cap in the direction indicated by arrow ⓐ .



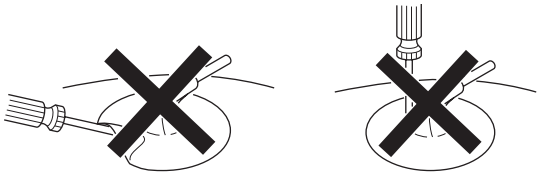
Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ⓑ .



When one side of the rubber cap separates from the anode button, the anode cap can be removed by turning the rubber cap and pulling it in the direction of arrow ⓒ .

HOW TO HANDLE AN ANODE CAP

1. Do not use sharp objects which may cause damage to the surface of the anode cap.
2. To avoid damaging the anode cap, do not squeeze the rubber covering too hard. A material fitting called a shatter-hook terminal is built into the rubber.
3. Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.



SECTION 2: SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch should be set as follows unless otherwise noted:

VIDEO MODE: STANDARD (RESET)

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2)
5. White Balance

Test Equipment Required:

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter

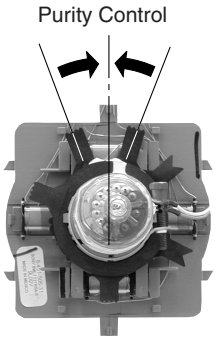
2-1. BEAM LANDING

Preparation:

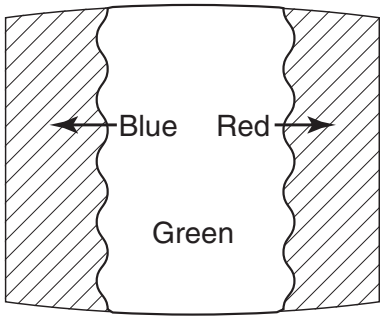
- Input a white pattern signal.
- Face the picture tube in an East or West direction to reduce the influence of geomagnetism.

NOTE: Do not use the hand degausser; it magnetizes the CRT .

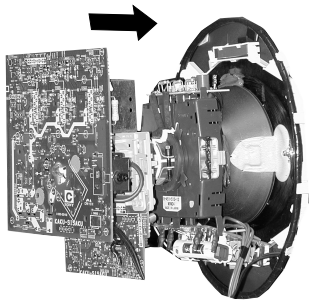
1. Input white pattern from pattern generator. Set the PICTURE control to maximum, and the BRIGHTNESS control to standard.
2. Perform Focus, G2 and White Balance adjustments.
3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:



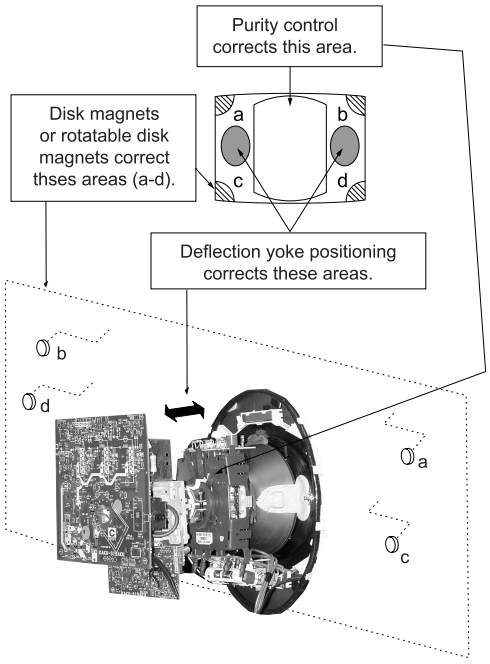
4. Input a green pattern from the pattern generator.
5. Move the deflection yoke backwards, and adjust with the purity control so that green is in the center and red and blue are even on both sides.



6. Move the deflection yoke forward, and adjust so that the entire screen becomes green.



7. Switch over the raster signal to red and blue and confirm the condition.
8. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
9. If landing at the corner is not right, adjust it by using the disk magnets.



2-2. V-PIN AND V-CEN ADJUSTMENT

Preparation:
- Input a cross hatch pattern signal.
- Face the picture tube in a North/South direction and correct rotation.
- Set Video Mode to: Standard (Reset)

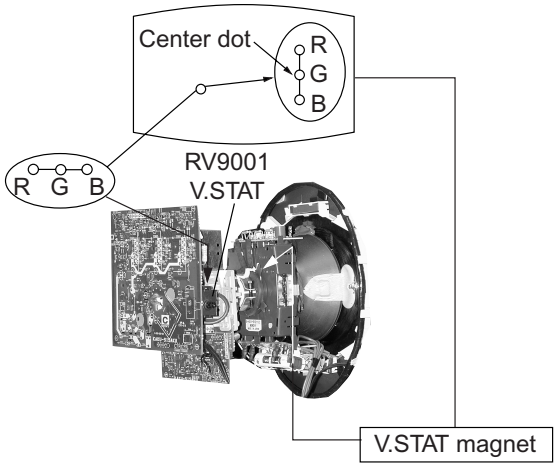
1. Adjust service mode CXA2150D-1 04 V-CEN so that the top pin and bottom pin are symmetrical from top to bottom.
2. Adjust service mode CXA2150D-1 05 V-PIN so that the top pin and bottom pin are symmetrical from top to bottom.
3. Lines should be straight from left to right. Check landing for side effect.

2-3. CONVERGENGE

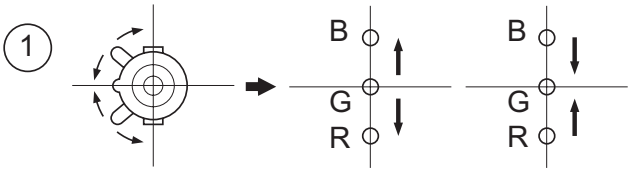
Preparation:
- Set the CONTRAST and BRIGHTNESS control to 50%.
- Input HD dot pattern.

2-3.1. VERTICAL AND HORIZONTAL STATIC CONVERGENCE

1. Disconnect the dynamic convergence before adjusting static convergence (CN5510), except for minor touch-up.
2. Adjust H.STAT convergence, RV9001, to converge red, green, and blue dots in the center of the screen.
3. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen.



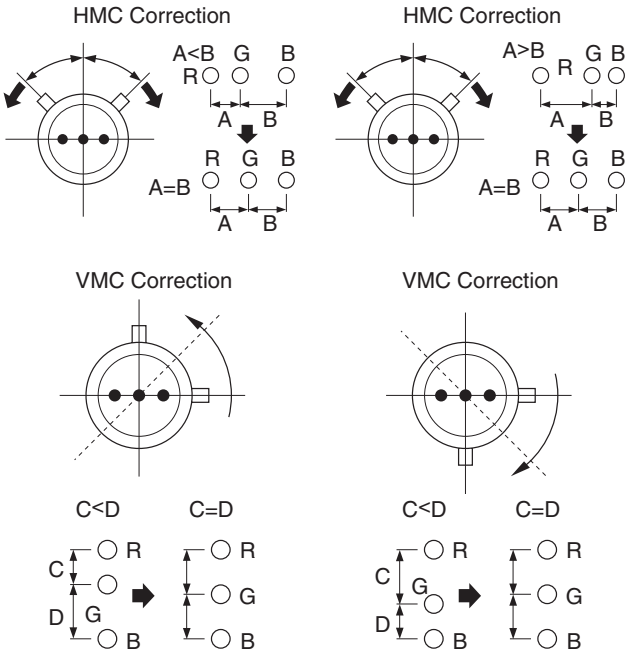
4. Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.



2-3.2. OPERATION OF BMC (HEXAPOLE) MAGNET

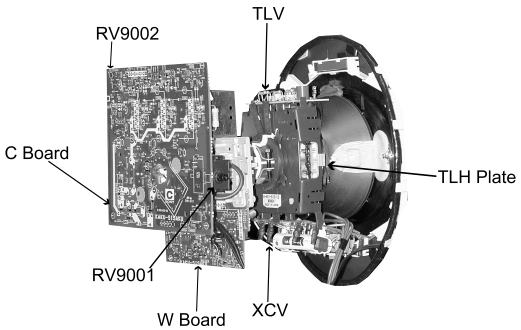
The respective dot positions result from moving each magnet interact. Perform the following adjustments while tracking.

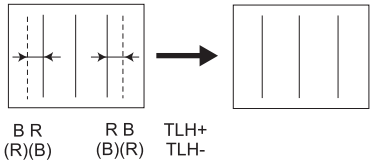
1. Use the V.STAT tabs to adjust the red, green and blue dots so that they line up at the center of the screen (move the dots in a horizontal direction).



2-3.3. TLH PLATE ADJUSTMENT

Preparation:
- Input a cross hatch pattern signal.
- Adjust PICTURE QUALITY to Standard, PICTURE and BRIGHTNESS to 50%, and OTHER to Standard.
- Adjust unbalanced horizontal convergence of red and blue dots by adjusting the TLH Plate on the deflection yoke.



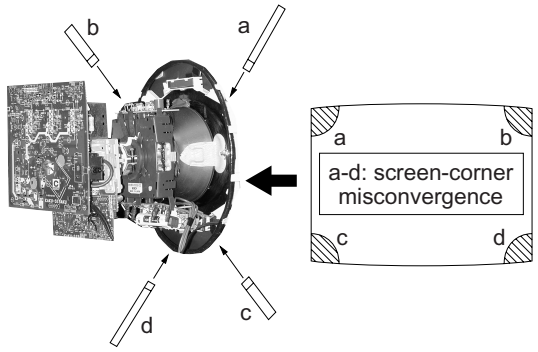


1. Adjust XCV core to balance X axis.
2. Adjust the vertical red and blue convergence with V.TILT (TLV VR).
   Note: Perform adjustments while tracking Item 1.

2-3.4. SCREEN-CORNER CONVERGENCE

Preparation:
- Input a cross hatch pattern signal.

1. Affix a permalloy assembly corresponding to the misconverged areas.



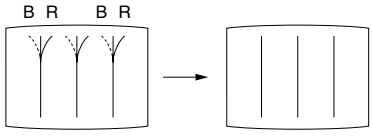
2-3.5. DYNAMIC CONVERGENCE ADJUSTMENTS

Set dynamic convergence using the following service mode adjustment data.

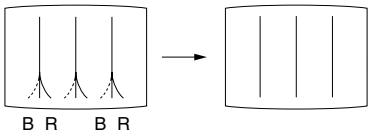
CXA8070AP

NO.	Register	Function	Data Length	Initial Data
1	YBWU	VCA9	0-63	31
2	YBWL	VCA10	0-63	31
3	RSAP	DC-AMP1	0-63	31
4	RUBW	VCA5	0-63	31
5	RLBW	VCA6	0-63	31
6	LSAP	DC-AMP2	0-63	31
7	LUBW	VCA10	0-63	31
8	LLBW	VCA2	0-63	31

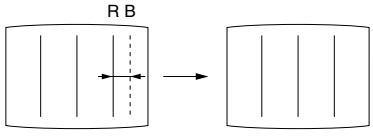
1. YBWU (Upper Y-BOW)



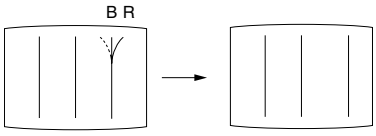
2. YBWL (Bottom BOW)



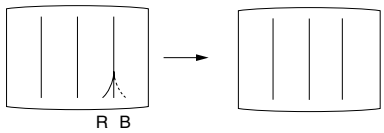
3. RSAP (Right AMP)



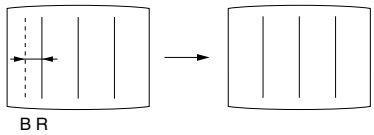
4. RUBW (Right Side Upper C-BOW)



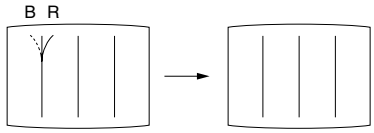
5. RLBW (Right Side Bottom C-BOW)



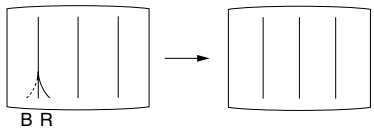
6. LSAP (Left AMP)



7. LUBW (Left Side Upper C-BOW)

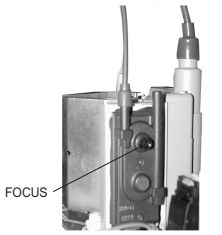


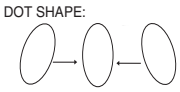
8. LLBW (Left Side Bottom C-BOW)



2-4. FOCUS ADJUSTMENT

1. Input a dot signal.
2. Set Video Mode to STANDARD.
3. Adjust focus VR counter-clockwise to confirm that the dot's shape is centered.
4. Input a HP monoscope signal.
5. Confirm center focus with focus VR.





2-5. SCREEN (G2)

1. Input a monoscope pattern (NTSC).
2. Set to service mode and adjust as follows:

CXA2150P-2

NO.	Disp.	Item	Avg.
0	ALBK	ALL_BLK	0

3. Adjust RV9002 on the C Board so that the voltage on red, green and blue cathodes is 175 ± 2 VDC.
4. Adjust the hotizontal line at the top of the screen so it is cut off.

Note: Never set ALBK to 1 when external power supply is connected to cathode.

2-6. PICTURE QUALITY ADJUSTMENTS

Preparation:
- Set PRO MODE (Picture: MAX, GAMMA: 0).
- Dynamic-color: Off (=Trinitron: MID).
- Set the Service Mode to the following:

C2150P-4

NO.	Name	Control Function	Avg. Data
06	UDCL	Dynamic Color: OFF	0
08	UGRAM	GRAMMA	5
15	DCTR	DC-TRAN	2
16	DPIC	DYNAMIC PIC: OFF	1

1. Input signal (480i):
   - Color Bar Video 75 IRE (White) 75% modulation 7.5% Set-up.
   - Color Bar RF 75 IRE (White) 75% modulation 7.5% Set-up.

2-6.1. VIDEO INPUT - TWO PICTURE SUB CONTRAST ADJUSTMENT

Preparation:
- Input a Color Bar signal to VIDEO 1 (75 IRE 75%).
- Set picture mode: P&P (PRO MODE).

1. Set to Service Mode and adjust as follows:

2150P-4

NO.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	0

2150P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	4

INITIAL DATA (IMPORTANT)

2150P-4

NO.	Name	Control Function	Avg. Data
23	SCON	SUB-CONT	8

2103-1

NO.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

2103-2

NO.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

2. Connect oscilloscope to Pin 1 of CN9001 (R.DRV) on the C Board.
3. Adjust MAIN (left) side contrast according to Service Mode for SCON.

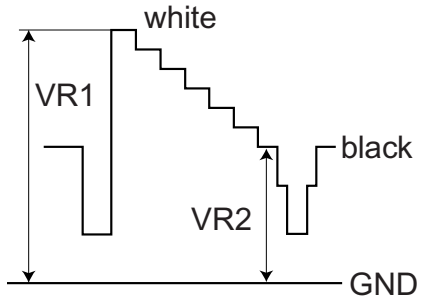
2103-1

NO.	Name	Control Function
02	SCON	SUB-CONT

4. Adjust SUB (right) side contrast according to Service Mode for SCON.

2103-2

NO.	Name	Control Function
02	SCON	SUB-CONT



VR1-VR2 = △VR = 2.08 ± 0.05 Vp-p

5. Write data from Steps 3 and 4 above, into memory.

2-6.2. VIDEO INPUT - SUB HUE/SUB COLOR ADJUSTMENT

Preparation:
- Input a Color Bar signal to VIDEO 1 (75 IRE 75%).
- Set picture mode: P&P (PRO MODE).

1. Set to Service Mode and adjust as follows:

2150P-4

NO.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	31

2150P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	7

2. Connect an oscilloscope to Pin 5 of CN9001 (B. DRV) on the C Board.
3. Adjust MAIN (left) side color according to Service Mode for SCOL.
4. Adjust MAIN (left) side color according to Service Mode for SHUE.

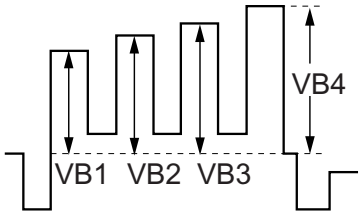
2103-1

NO.	Name	Control Function
03	SCOL	SUB-COL
04	SHUE	SUB-HUE

5. Adjust SUB (right) side color according to Service Mode for SCOL.
6. Adjust SUB (right) side color according to Service Mode for SHUE.

2103-2

NO.	Name	Control Function
03	SCOL	SUB-COL
04	SHUE	SUB-HUE



COLOR: VB1 ≤ VB4 (=VB1 + 0~90 mV)
HUE: VB2 ≤ VB3 (=VB2 + 0~90 mV)
(HUE: Adjust data -2 STEP)

7. Write data into memory.

2-6.3. RF INPUT - TWO PICTURE SUB CONTRAST ADJUSTMENT

Preparation:
- Input a Color Bar signal to RF (75 IRE 75%).
- Set picture mode: P&P (PRO MODE).

1. Set to Service Mode and adjust as follows:

2150P-4

NO.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	0

2150P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	4

INITIAL DATA (IMPORTANT)

2150P-4

NO.	Name	Control Function	Avg. Data
23	SCON	SUB-CONT	9

2103-1

NO.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

2103-2

NO.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

Note: Use the same average data as 2-6.1., Items 3 - 4 after the adjustment.

2. Connect an oscilloscope to Pin 1 of CN9001 (R. DRV) on the C Board.
3. Adjust MAIN (left) side contrast according to service mode for SCON.

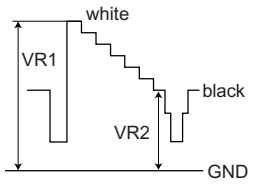
2103-1

NO.	Name	Control Function
02	SCON	SUB-CONT

4. Adjust SUB (right) side contrast according to Service Mode for SCON.

2103-2

NO.	Name	Control Function
02	SCON	SUB-CONT



VR1-VR2 = △VR = 2.08 ± 0.05 Vp-p

5. Write data from Steps 3 - 4 above, into memory.

2-6.4. RF INPUT - SUB HUE/SUB COLOR ADJUSTMENT

Preparation:
- Input a Color Bar signal to RF (75 IRE 75%).
- Set picture mode: P&P (PRO MODE).

1. Set to Service Mode and adjust as follows:

2150P-4

NO.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	31

2150P-4

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	7

INITIAL DATA (IMPORTANT)

2150P-4

NO.	Name	Control Function	Avg. Data
24	CLOF	OFFSET for UCOL	8
25	HUOF	OFFSET for UHUE	4

2103-1

NO.	Name	Control Function	Avg. Data
01	CLEV	CB & CR-OUT	20
20	CBOF	CB-OFFSET	31
21	CROF	CR-OFFSET	31

2103-2

NO.	Name	Control Function	Avg. Data
01	CLEV	CB & CR-OUT	19
20	CBOF	CB-OFFSET	31
21	CROF	CR-OFFSET	31

Note: Use the same average data as 2-6.2., Items 3-6 after the adjustment.

2. Connect an oscilloscope to pin 5 of CN9001 (B. DRV) on the C Board.
3. Adjust MAIN (left) side color according to Service Mode for SCOL.
4. Adjust MAIN (left) side color according to Service Mode for SHUE.

2103-1

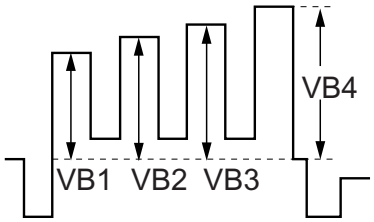
NO.	Name	Control Function
03	SCOL	SUB COLOR
04	SHUE	SUB HUE

5. Adjust SUB (right) side color according to Service Mode for SCOL.

6. Adjust SUB (right) side color according to Service Mode for SHUE.

2103-2

NO.	Name	Control Function
03	SCOL	SUB COLOR
04	SHUE	SUB HUE



COLOR: VB1 ≤ VB4 (=VB1 + 0~90 mV)
HUE: VB2 ≤ VB3 (=VB2 + 0~90 mV)
(HUE: Adjust data -2 STEP)

7. Write data into memory.

2-7. WHITE BALANCE (CRT) AND SUB BRIGHT ADJUSTMENT

Preparation

- Input an all white 480I (15.734 KHz) signal into the VIDEO 1 input terminal to perform the White Balance (highlight, cut-off) adjustments. The parameters to adjust are in the CXA2150P in Service Mode.

1. Set the following:
   Picture: Full Mode
   Pro Mode
   Color: Center
2. Adjust White Balance in the Service Mode and set the following data:

2150P-1

NO.	Name	Control Function	Avg. Data
05	RDRV	R-DRIVE	Fix: 46
06	GDRV	G-DRIVE	Adjust
07	BDRV	B-DRIVE	Adjust
08	RCUT	R-CUT OFF	Fix: 41
09	GCUT	G-CUT OFF	Adjust
10	BCUT	B-CUT OFF	Adjust

3. Adjust Sub Brightness: Input an all black signal (to IRE 7.5% set up) 480i (15.75 KHz) signal into the VIDEO 1 input terminal. Adjust the following parameter of CXA2150P-1:
4. Check Initial Data (Important).

CXA2150P-1

NO.	Name	Control Function	Avg. Data
04	SBRT	SUB-BRIGHT	20

2150P-1

NO.	Name	Control Function	Avg. Data
00	SBOT	SUB-BRT OFFSET	7
12	SBOF	SUB-BRT OFFSET	63

5. Repeat Steps 2-4.

2-8. RASTER CENTER ADJUSTMENT

Preparation:

- Input a monoscope signal.
- Set to NTSC (DRC) mode.

1. Set to Service Mode and adjust as follows:

CXA2150P-2

NO.	Name	Control Function	Avg. Data
06	AGNG	AGING 1, AGING 2	2

CXA2150D-2

NO.	Name	Control Function	Avg. Data
02	HSIZ	Horiz Size	45

CXA2150D-3

NO.	Name	Control Function	Avg. Data
00	HBLK	Blanking Enable	0

2. Reduce HSIZ to see sides of raster.
3. Adjust H-Center with CXA2150D-2 00.
4. Adjust to the best screen position with H-CENT and write data.
5. Restore aging, HSIZ and HBLK to original condition.

2-9. PICTURE DISTORTION ADJUSTMENTS

2-9.1. NTSC (DRC) FULL MODE ADJUSTMENT

1. Face the picture tube in an east-west direction.
2. Complete V-PIN and V-CEN adjsuments first (A2150-D1 05 V-PIN, A2150-D1 04 V-CEN).
3. Input a monoscope and crosshatch signal. Adjust the picture distortion with the following service parameters to balance the best condition for these two signals.

A2150-D1	00	VPOS
A2150-D1	01	VSIZ
A2150-D1	02	VLIN
A2150-D1	03	VSCO
A2150-D1	04	VCEN
A2150-D1	05	VPIN
A2150-D1	07	HTPZ

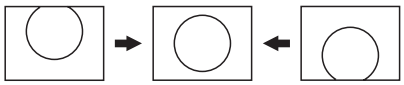
A2150-D2	01	HPOS
A2150-D2	02	HSIZ
A2150-D2	03	SLIN
A2150-D2	04	MPIN
A2150-D2	06	UCP
A2150-D2	07	LCP
A2150-D2	13	PPHA
A2150-D2	14	VANG
A2150-D2	15	LANG
A2150-D2	16	VBOW
A2150-D2	17	LBOW

Note: Make sure that the picture size is within specs. Vertical size is 11.7 ± 0.1 sq. and horizontal size is 15.6 ± 0.1 sq.

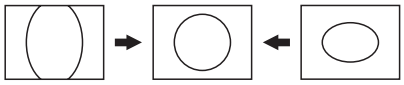
4. Write data into memory and then set the screen to 1080i mode.

CXA2150D-1

0. VPOS (V-POSITION)



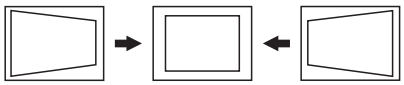
1. VSIZ (V-SIZE)



2. VLIN (V-LINE)

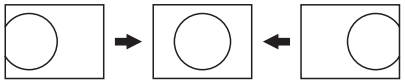
3. VSCO (VS-COR)

7. HTPZ (H-TRAPEZOID)

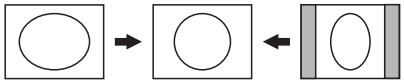


CXA2150D-2

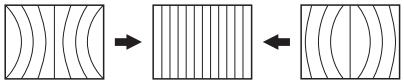
1. HPOS (H-POSITION)



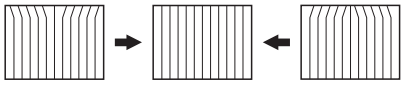
2. HSIZ (H-SIZE)



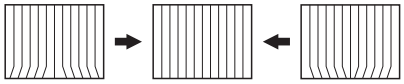
5. PIN (PIN AMP)



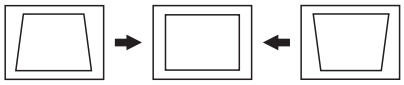
6. UCP (UP COR PIN COR)



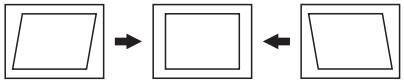
7. LCP (LOW CO PIN COR)



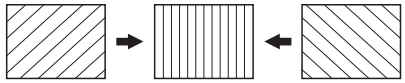
13. PPHA (PIN PHASE)



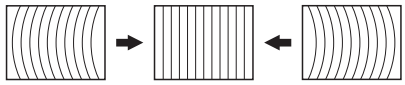
14. VANG (AFC-ANGLE)



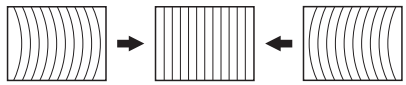
15. LANG (L-ANGLE)



16. VBOW (AFC-BOW)



17. LBOW (L-BOW)



2-9.2. 1080i HD MODE ADJUSTMENT

1. Input a 1080i cross-hatch signal and an HD monoscope signal that contains overscan markers.
2. Adjust the raster position per Section 2-8., only if this procedure was not performed for full mode.
3. Adjust the geometry similar to Full DRC mode. Vertical size is 11.7 ± 0.1 sq. and horizontal size is 15.6 ± 0.1 sq., if monoscope signal is available. Otherwise, set the Vertical size to 91.0 ± 0.6% scan and Horizontal size as 91.0 ± 0.6% scan.
4. Use the following register to adjust the horizontal parameter:

A2150-D2	01	HPOS

Note: If necessary, touch up the geometry using the data register listed above for Full mode.

5. Write the data into memory.

2-9.3. VERTICAL COMPRESSED MODE CHECK AND CONFIRMATION

1. Input a monoscope and crosshatch signal.
2. Check vertical compressed mode.

SECTION 3: SAFETY RELATED ADJUSTMENTS

3-1. ⋈ RV8001, RV8002 CONFIRMATION METHOD AND HV SERVICE ADJUSTMENTS

3-2. B+ MAX CONFIRMATION

Standard ..... 135.3 ± 1 VDC

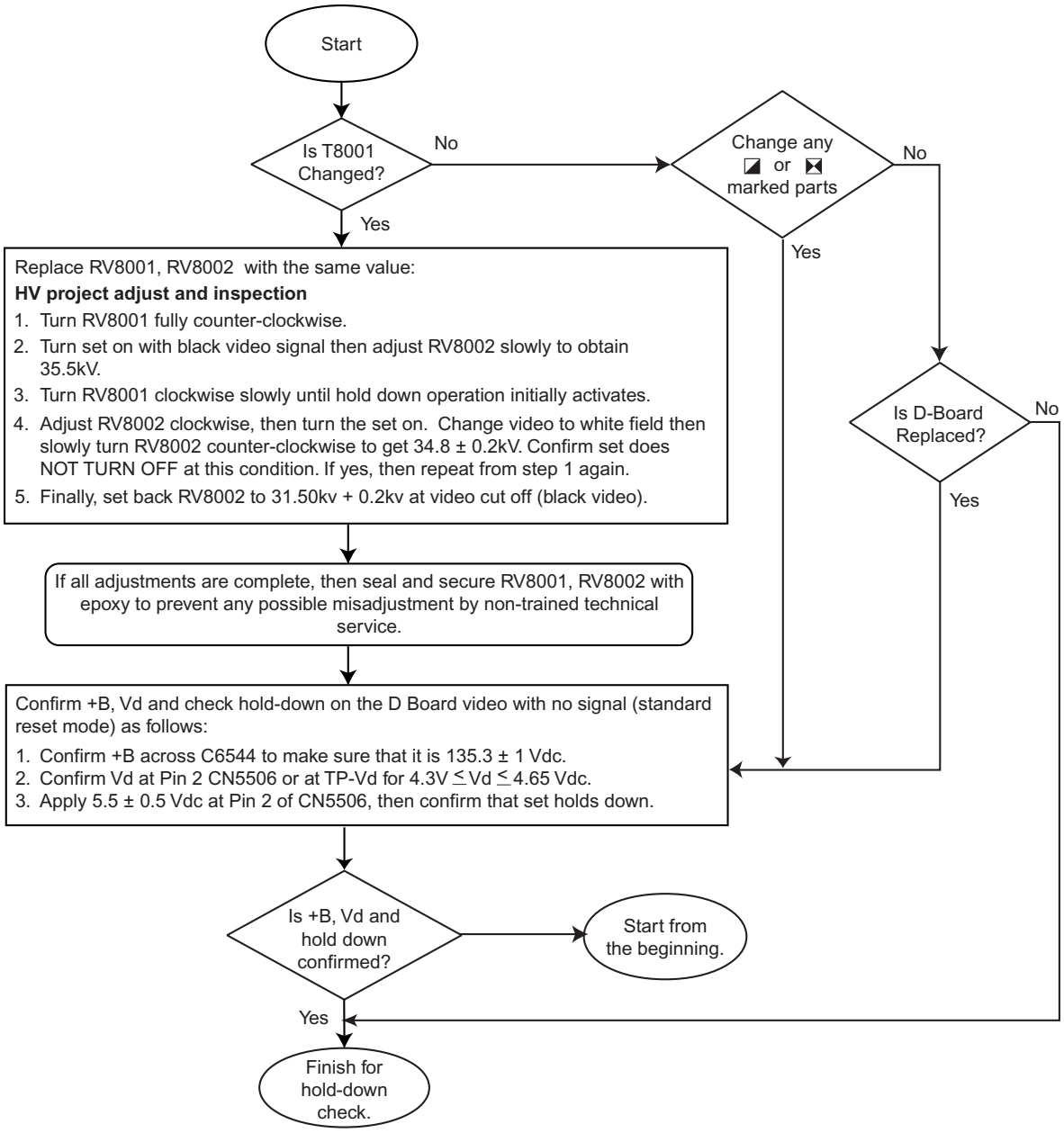
Check Condition:

AC input voltage: 120 (± 2) VAC at Board Adjustment Process
130 (± 2) VAC at QC
120 (± 2) VAC at Overall Adjustment (after aging)

Note: If using a stabilized power supply, make sure that the distortion factor is 3% or less.

Setting Mode: ..... Full mode
Signal Input: ..... Cross-hatch of NTSC at QC
Initial Setting: ..... Reset condition at QC
Confirm Point: ..... Across C6544 for B+ of D Board

3-3. HV SERVICE FLOWCHART


Start
Is T8001 Changed?
No
Yes
Change any ◪ or ⋈ marked parts
No
Yes
Replace RV8001, RV8002 with the same value:
HV project adjust and inspection
1. Turn RV8001 fully counter-clockwise.
2. Turn set on with black video signal then adjust RV8002 slowly to obtain 35.5kV.
3. Turn RV8001 clockwise slowly until hold down operation initially activates.
4. Adjust RV8002 clockwise, then turn the set on. Change video to white field then slowly turn RV8002 counter-clockwise to get 34.8 ± 0.2kV. Confirm set does NOT TURN OFF at this condition. If yes, then repeat from step 1 again.
5. Finally, set back RV8002 to 31.50kv + 0.2kv at video cut off (black video).
Is D-Board Replaced?
No
Yes
If all adjustments are complete, then seal and secure RV8001, RV8002 with epoxy to prevent any possible misadjustment by non-trained technical service.
Confirm +B, Vd and check hold-down on the D Board video with no signal (standard reset mode) as follows:
1. Confirm +B across C6544 to make sure that it is 135.3 ± 1 Vdc.
2. Confirm Vd at Pin 2 CN5506 or at TP-Vd for 4.3V ≤ Vd ≤ 4.65 Vdc.
3. Apply 5.5 ± 0.5 Vdc at Pin 2 of CN5506, then confirm that set holds down.
Is +B, Vd and hold down confirmed?
Start from the beginning.
Yes
Finish for hold-down check.

SECTION 4: CIRCUIT ADJUSTMENTS

ELECTRICAL ADJUSTMENTS BY REMOTE COMMANDER

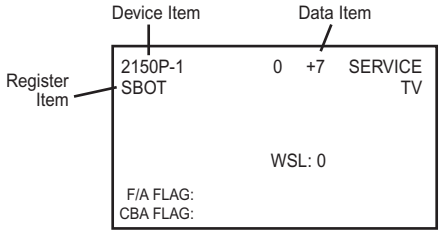
Use the Remote Commander (RM-Y184) to perform the circuit adjustments in this section.

Test Equipment Required: 1. Pattern generator 2. Frequency counter 3. Digital multimeter 4. Audio oscillator

4-1. SETTING THE SERVICE ADJUSTMENT MODE

1. Standby mode (Power off).
2. Press the following buttons on the Remote Commander within one second of each other:
   DISPLAY → Channel 5 → Sound Volume + → Power

SERVICE ADJUSTMENT MODE VIEW



READING THE MEMORY

1. Enter into Service Mode.
2. Press 0 on the Remote Commander.
3. Press ENTER to read memory.

ADJUSTING THE PICTURE

1. Enter into Service Mode
2. Press 2 or 5 on the remote to select the device item.
3. Press 1 or 4 on the remote to select an item.
4. Press 3 or 6 on the remote to change the data.
5. Press MUTING then ENTER to write into memory.

4-1.1. RESETTING THE DATA

Note: Be careful when using the remote! It will clear and re-initialize ALL NVM data including deflection adjustment data if not reset properly as follows:

RESETTING THE DEFLECTION NVM DATA

1. Enter into Service Mode.
2. Press 7, then MENU, and then press ENTER on the remote.

RESETTING THE SYSTEM NVM DATA

1. Enter into Service Mode.
2. Press 7, then 9, and then press ENTER on the remote.

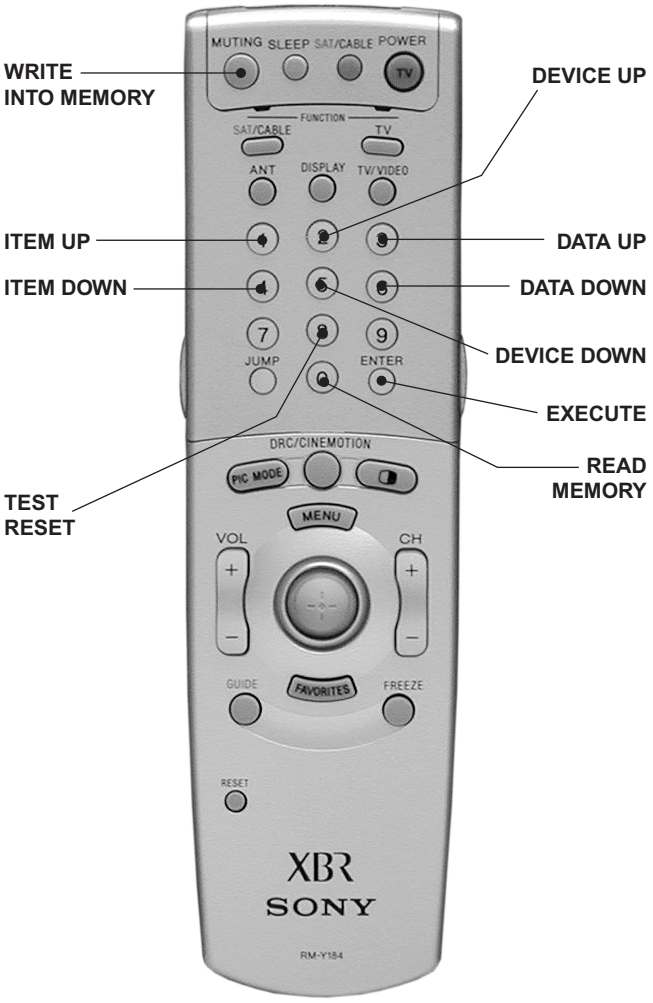
RESETTING THE SYSTEM NVM DATA

1. Enter into Service Mode.
2. Press 8 and then press ENTER on the remote.

4-2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again to confirm they were adjusted.

4-3. REMOTE ADJUSTMENT BUTTONS AND INDICATORS



RM-Y184

DX1A-2001* Service List ------ Contents & Notes					
Category Number & Name		Device Name	Device Reference Number	Slave Address	Comment
# 1	**3D-COMB**	µPD64082	IC3501 / BC-board	B8h (W) & B9h (R)	W&R: Write & Read
# 2-1	**CXA2103-1 (Main)**	CXA2103Q	IC3048 (Main) / B-board	9Ah	
# 2-2	**CXA2103-2 (Sub)**		IC3110 (Sub) / B-board	9Eh	
# 3-1	**CXA2150P-1**	CXA2150Q	IC201 / A-board	86h	
# 3-2	**CXA2150P-2**				
# 3-3	**CXA2150P-3**				
# 3-4	**CXA2150P-4**				
# 4-1	**CXA2150D-1**	CXA2150Q	IC201 / A-board	86h	
# 4-2	**CXA2150D-2**				
# 4-3	**CXA2150D-3**				
# 5	**CXA2151**	CXA2151Q	IC3001 / B-board	84h	
# 6	**D-CONV**	CXA8070P	IC5513 / D-board	DEh	
# 7	**CXA2026**	CXA2026AS	IC5511 / D-board	8Eh	
# 8	**AP**	BH3868FS	IC7001 / A-board	82h	
# 9	**TRUS**	NJM2180M	IC4101 / S-board	2Eh	Controlled through CXA1315M (IC4103 / S-board / 48h)
# 10	**MID1**	CXD9509AQ	IC3408 / B-board	2Eh	Controlled through MID-XA Micro (IC3090 / B-board / 64h)
# 11	**MID2**	CXD9509AQ	IC3408 / B-board	2Eh	Controlled through MID-XA Micro (IC3090 / B-board / 64h)
# 12	**MID3**	CXD9509AQ	IC3408 / B-board	2Eh	Controlled through MID-XA Micro (IC3090 / B-board / 64h)
# 13	**MID5**	CXD9509AQ	IC3408 / B-board	2Eh	Controlled through MID-XA Micro (IC3090 / B-board / 64h)
# 14	**OSD**	M306V2ME-153FP	IC701 / A-board	60h	DX1A-2001 System Micro {V1.0}
# 15	**SNNR**	µPD64082	IC3501 / BC-board	B8h (W) & B9h (R)	
		CXA2103Q	IC3048 (Main) / B-board	9Ah	
		CXA2150Q	IC201 / A-board	86h	
# 16	**ID1**	CXD2085M	IC3603 / B-board	40h	
# 17	**CCD&VCHIP**	CXP85840A-039Q	IC3602 (Main) / B-board	68h (Main)	CCD&Vchip Micro (V2.14)
			IC3601 (Sub) / B-board	6Ch (Sub)	
# 18	**OP**	M306V2ME-153FP	IC701 / A-board	60h	DX1A-2001 System Micro {V1.0}
# 19	**ID**	M306V2ME-153FP	IC701 / A-board	60h	DX1A-2001 System Micro {V1.0}
DX1A-2001 System Micro & Notes for Services		M306V2ME-153FP (MASK), Software Version 1.0, IC701/A-board (Slave Adress: 60h) The system micro name, software&patch versions, and the status of NVM devices are displayed only when in the service catergory (#19): ID.			
DX1A-2001 MID-XA Micro		MB94918RPF-G-137-BND (MASK), Software Version 12/08/00, IC3090/B-board (Slave Address: 64h)			
DX1A-2001 CCD&Vchip Micros		CXP85840A-039Q (MASK), Software Version 2.14, IC3602/B-board (Main/Slave Address: 68h) & IC3601/B-board (Sub/Slave Address:			

Note:
*** This service list is used for DX1A-2001 ONLY. Some service data is the same in DX1A-2001 & 2000, as noted in the data sheets.**

DX1A-2001&2000 SERVICE LIST (#1): 3D-COMB / mPD64082 (Part-1/4)

Device Name: mPD64082GF { 3D-Comb Filter / NEC } / IC3501 (BC-board) / P/N: 8-759-594-44 (SB#: V7372)
Slave Address: B8h (Write Address) / B9h (Read Address)

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Comment
					UHF/VHF & CVideo		SVideo		CVideo (CV): CVideo1~4 inputs SVideo (SV): SVideo1~3 inputs
					Standard	Non-standard	Standard	Non-standard	
0	**NRMD**	Operation mode setting		0~3	0	1	3	3	
1	**YAPS**	Y-output correction (V-aperture compensation & Y-peaking filtering)	C	0~3	3				C: Common data
2	**CLKS**	System clock setting	C	0~3	1				
					UHF/VHF & CVideo		SVideo		
					Standard	Non-standard	Standard	Non-standard	
3	**NSDS**	Selection for standard/non-standard signal processing		0~3	0	0	0	0	
4	**MSS**	Selection for inter-frame/inter-line processing	C	0~3	0				
5	**KILS**	Killer processing selection	C	0~3	1				
6	**CDL**	C-signal phase with respect to the Y-signal (Fine adjustment at 70 ns/step)	C	0~7	3				
		NRMD Setting-based Control Table for DYCO, DYGA, DCCO, DCGA			NRMD = 0	NRMD = 1	NRMD = 2	NRMD = 3	
7	**DYCO**	DY detection coring level (Y motion detection coring)		0~15	2	2	2	2	
8	**DYGA**	DY detection gain (Y motion detection gain)		0~15	10	10	10	10	
9	**DCCO**	DC detection coring level (C motion detection coring)		0~15	5	5	5	5	
10	**DCGA**	DC detection gain (C motion detection gain)		0~15	5	5	5	5	
11	**YNRL**	Frame recersive YNR nonlinear filter limit level	C	0~3	1				
12	**CNRL**	Frame recersive CNR nonlinear filter limit level	C	0~3	1				
					UHF/VHF	Video1~4	Video5&6		Video1~4: CVideo1~4 & SVideo1~3 inputs Video5&6: YPbPr-480i/480p/1080i inputs
13	**VTRH**	Hysteresis for Hsync non-standard signal detection (out-of-Hsync intra-field)		0~3	1	1	1		
14	**VTRR**	Sensitivity for Hsync non-standard signal detection (out-of-Hsync intra-field)		0~3	1	1	1		
15	**LDSR**	Sensitivity for frame non-standard signal detection (out-of-Hsync inter-frame)		0~3	2	2	2		
		VM&SNNR Setting-based Control Table for VAPG & VAPI **VAPG= VAPG1 - VAPG2**			VAPG1 Data Based on MENU/VM Setting				This setting continues to the next page.
					VM = Off	VM = Low	VM = Mid	VM = High	
16	**VAPG**	V-aperture compensation gain		0~7	0	2	3	4	
17	**VAPI**	V-aperture compensation convergence point		0~31	4	4	4	8	
		SNNR Setting-based Control Table for YPFT & YHFG				SNNR Setting (-Offset)			
						SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3
18	**YPFT**	Y peaking filter (BPF) center frequency		0~3	0	0	0	0	0
19	**YPFG**	Y peaking filter (BPF) gain		0~15	7	0	1	2	3

Note: The same 3D-COMB service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#1): 3D-COMB / mPD64082 (Part-2/4)

Register No & Name	Data Initial/Average Setting (32V&36V CRTs)				Comment
	VAPG2 Data Based on SNNR/Offset-setting				
	SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3	
#16 **VAPG (cont.)**	0	0	0	0	

Note: The same 3D-COMB service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#1): 3D-COMB / mPD64082 (Part-3/4)

Register No.	Register Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Comment
		SNNR Setting-based Control Table for YHCO & YHCG			**SNNR = 0**	**SNNR = 1**	**SNNR = 2**	**SNNR = 3**	(Not SNNR Offset Data
20	**YHCO**	Y output high frequency component coring		0~3	1	1	1	1	YHCO&YHCG settings are sent directly to 3D-Comb
21	**YHCG**	Y output high frequency component coring gain		0, 1	0	0	0	0	
22	**HSSL**	Hsync slice level	C	0~15	12	C: Common data			
23	**VSSL**	Vsync slice level	C	0~15	8				
24	**ADCL**	ADC clock delay	C	0~3	3				
		NRMD Setting-based Control Table for D2GA			**NRMD = 0**	**NRMD = 1**	**NRMD = 2**	**NRMD = 3**	
25	**D2GA**	Moving detection gain		0~7	4	4	4	4	
26	**KILR**	Killer detection reference	C	0~15	3				
27	**OP1**	Option1: Selection of comb filter & recursive noise reduction types	C	0, 1	1				
					UHF/VHF	**CVideo1**	**SVideo1**	This setting continues to the next page.	
28	**NR1**	Noise reduction on/off		0, 1	0	0	1		
29	**NR2**	SNNR control on/off	C	0, 1	0				
30	**WSL**	Noise level detection data		0~255	1 Byte Data from Read Register WSL				
31	**HPLL**	H-PLL filter (Must be set to 1 when MN signal is input.)	C	0, 1	1				
32	**BPLL**	Burst PLL filter	C	0, 1	1				
33	**FSCF**	Burst extraction gain	C	0, 1	0				
34	**PLLF**	PLL loop gain	C	0, 1	1				
					UHF/VHF	**Video1~4**	**Video5&6**	Video1~4: CVideo1~4 & SVideo1~3 inputs Video5&6: YPbPr-480i/480p/1080i	
35	**CC3N**	Selection of a line-comb filter C separation filter characteristic		0, 1	0	0	0		
36	**HDP**	Fine adjustment of the system H-phase	C	0~7	5				
37	**BGPS**	Internal burst gate start position {Gate Start Position from Hsync center = 0.25 x BGPS + 2 (ms)}	C	0~15	4				
38	**BGPW**	Internal burst gate width {Gate Width = 0.25 x BGPW + 0.5 (ms)}	C	0~15	10				
39	**TEST**	Test bit {0: Normal mode, 1: Test mode (forbidden setting	C	0, 1	0				
40	**WSC**	Amount of noise detection coring	C	0~3	1				
					UHF/VHF & Video1~4		**Video5&6**	This setting is used for non-standard signals such as Play Station signals.	
41	**LIND**	DRC-M line-doubling setting for non-standard signals	Micro	0~63	0		2		
42	**PFGO**	(YPFG offset at GR on) --- Not used for DX1A	---	0~7	3	(Not used for DX1A)			

Note: The same 3D-COMB service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#1): 3D-COMB / mPD64082 (Part-4/4)

Register No. & Name	Data Initial/Average Setting (32V&36V CRTs)				Comment
	CVideo2	**SVideo2**	**CVideo3**	**SVideo3**	
#28 **NR1 (cont.)**	0	1	0	1	

Note: The same 3D-COMB service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#2-1): CXA2103-1 {Main}

Device Name: CXA2103Q { NTSC-YCT (Chroma Decoder) / SONY } / IC3048 (B-board) / P/N: 8-752-089-50 (SBorSD#: NA)
Slave Address: 9Ah { Main }

Register No	Register Name	Control Register Function & Link	Data Type	Data Range	Data Initial Setting & [Average Data] (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Note
					UHF/VHF & Video		YPbPr-480i		Video: CVideo1~4 & SVideo1~3 Inputs P&P-Left (M)-1080i&480i: If P&P-Left is 1080i/480p signal, the signal from the main chroma decoder is sent to MID/VDO input. *: Settings not used				
					P&P-Left (M)-DRC	P&P-Left (M)-1080i	P&P-Left (M)-DRC	P&P-Left (M)-480i					
0	YLEV	Y-Out gain		0~63	23	27*	35	31*					
1	CLEV	Cb&Cr-Out gains		0~63	20	55*	37	31*					
					UHF/VHF		Video						
2	SCON	Sub contrast	Adj.	0~15	7 [7]		7 [7]		Adj.: Adjusted data [Adj.-2steps]: The adjusted data - 2 steps				
3	SCOL	Sub color	Adj.	0~15	7 [7]		7 [7]						
4	SHUE	Sub hue	Adj.	0~15	7 [Adj.-2steps]		7 [Adj.-2steps]						
5	YDLY	Y/C delay time		0~3	0		0						
		SNNR Data-related Settings			UHF/VHF	CVideo	SVideo	YPbPr 480i	SNNR=0 (-offset)	SNNR=1 (-offset)	SNNR=2 (-offset)	SNNR=3 (-offset)	
6	SHAP	Sharpness		0~15	6	4	4	4	0	1	2	3	
7	SHF0	Sharpness f0 selector		0~3	0	0	0	0					
8	PREO	Sharpness pre/over-shoot ratio		0~3	3	0	0	0					
9	BPF0	Chroma band filter f0 setting		0~3	3	0	0	0					
10	BPFQ	Chroma band filter Q setting		0~3	0	3	3	3	CVideo: CVideo1~4 Inputs SVideo: SVideo1~3 Inputs				
11	BPSW	Chroma band filter on/off		0, 1	1	0	0	0					
12	TRAP	Y bolck chroma trap filter on/off		0, 1	0	0	0	0					
13	LPF	YPbPr-Output LPF on/off		0, 1	0	0	0	0					
					UHF/VHF	Video	YPbPr 480i						
14	AFCG	AFC Loop Gain (PLL between Hsync & HVCO)		0, 1	1	0	0						
15	CDMD	V countdown system mode selector		0~3	3	3	3						
16	SSMD	H&Vsync slide level setting		0~3	0	0	0						
17	HMSK	Masking of macrovision signal on/off		0, 1	1	1	1						
18	HALI	H automatic adjustment on/off		0, 1	0	0	0						
19	PPHA	H TIM phase adjustment for video		0~15	7	7	7						
					UHF/VHF & Video		YPbPr-480i						
					P&P-Left (M)-DRC	P&P-Left (M)-1080i	P&P-Left (M)-DRC	P&P-Left (M)-480i					
20	CBOF	Cb-Offset1 of Cb IN (Pin34) Cb-Offset2 of EXT Cb (Pin38)		0~(31)~63	31	31*	31	31*	*: Settings not used (31): The center setting = 31				
21	CROF	Cr-Offset1 of Cr IN (Pin35) Cr-Offset2 of EXT Cr (Pin39)		0~(31)~63	31	31*	31	31*					
		CXA2150P-4/#13 UBLK Setting-related Controls for ATPD & DCTR			P&P & Favorite				P&P & Favorite				Single
					UBLK = 0	UBLK = 1	UBLK = 2	UBLK = 3	UBLK = 4	UBLK = 5	UBLK = 6	UBLK = 7	UBLK = 0~7
22	ATPD	Auto-pedestal Inflection Point		0~3	0	1	2	3	1	2	3	2	0
23	DCTR	DC Transmission Ratio		0~3	0	1	1	1	2	2	2	3	0

Note: The same CXA2103 service data (Main&Sub) is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#2-2): CXA2103-2 {Sub}

Device Name: CXA2103Q { NTSC-YCT (Chroma Decoder) / SONY } / IC3110 (B-board) / P/N: 8-752-089-50 (SBorSD#: NA)
Slave Address: 9Eh { Sub }

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial Setting & [Average Data] (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Note
					UHF/VHF & Video				Video: CVideo1~4 & SVideo1~3 Inputs P&P-Right (S)-DRC: If P&P-Left is 1080i/480p signal, the signal from the sub chroma decoder is switched to DRC path.				
					P&P-Right (S)	P&P-Right (S)-DRC							
0	YLEV	Y-Out gain		0~63	23	28							
1	CLEV	Cb&Cr-Out gains		0~63	18	24							
					UHF/VHF		Video		Adj.: Adjusted data [Adj.-2steps]: The adjusted data - 2 steps				
2	SCON	Sub contrast	Adj.	0~15	7 [7]		7 [7]						
3	SCOL	Sub color	Adj.	0~15	7 [7]		7 [7]						
4	SHUE	Sub hue	Adj.	0~15	7 [Adj.-2steps]		7 [Adj.-2steps]						
5	YDLY	Y/C delay time		0~3	0		0						
		SNNR Data-related Settings			UHF/VHF	CVideo	SVideo		SNNR=0 (-offset)	SNNR=1 (-offset)	SNNR=2 (-offset)	SNNR=3 (-offset)	
6	SHAP	Sharpness		0~15	6	4	4		0	1	2	3	
7	SHF0	Sharpness f0 selector		0~3	0	0	0						
8	PREO	Sharpness pre/over-shoot ratio		0~3	3	0	0						
9	BPF0	Chroma band filter f0 setting		0~3	0	0	0		CVideo: CVideo1~4 Inputs SVideo: SVideo1~3 Inputs				
10	BPFQ	Chroma band filter Q setting		0~3	0	0	0						
11	BPSW	Chroma band filter on/off		0, 1	0	0	0						
12	TRAP	Y bolck chroma trap filter on/off		0, 1	0	0	0						
13	LPF	YPbPr-Output LPF on/off		0, 1	0	0	0						
					UHF/VHF	Video							
14	AFCG	AFC Loop Gain		0, 1	1	0							
15	CDMD	V countdown system mode selector		0~3	3	3							
16	SSMD	H&Vsync slide level setting		0~3	0	0							
17	HMSK	Masking of macrovision signal on/off		0, 1	1	1							
18	HALI	H automatic adjustment on/off		0, 1	0	0							
19	PPHA	H TIM phase adjustment for video		0~15	7	7							
					UHF/VHF & CVideo		YPbPr-480i						
					P&P-Right (S)	P&P-Right (S)-DRC	P&P-Right (S)	P&P-Right (S)-DRC					
20	CBOF	Cb-Offset1 of Cb IN (Pin34) Cb-Offset2 of EXT Cb (Pin38)		0~(31)~63	31	31	31*	31*	*: Settings not used (31): The center setting = 31				
21	CROF	Cr-Offset1 of Cr IN (Pin35) Cr-Offset2 of EXT Cr (Pin39)		0~(31)~63	31	31	31*	31*					
		CXA2150P-4/#13 UBLK Setting-related Controls for ATPD & DCTR			P&P Favorite				P&P & Favorite				Single
					UBLK = 0	UBLK = 1	UBLK = 2	UBLK = 3	UBLK = 4	UBLK = 5	UBLK = 6	UBLK = 7	UBLK = 0~7
22	ATPD	Auto-pedestal Inflection Point		0~3	0	1	2	3	1	2	3	2	0
23	DCTR	DC Transmission Ratio		0~3	0	1	1	1	2	2	2	3	0

Note: The same CXA2103 service data (Main&Sub) is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#3-1): CXA2150P-1 {Picture Controls: P1}

Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)
Slave Address: 86h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)							Comment
					UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	CV: CVideo1~4 SV: SVideo1~3 ( ): Settings at center
0	SBOT	Offset for SBRT		0~(7)~15	7	7	7	7	7	7	7	
1	YOF	Y_OFFSET: DC-offset for Y signal		0~(7)~15	0	0	0	0	0	0	0	
2	CBOF	CB_OFFSET: DC-offset for Cb signal		0~(31)~63	31	31	31	33	30	31	13	
3	CROF	CR_OFFSET: DC-offset for Cr signal		0~(31)~63	31	31	31	42	36	31	23	
4	SBRT	SUB_BRIGHT: Sub Bright	Adj.	0~63	24 [24]							Adj.: Adjusted data C: Common data Initial Setting = [Avg. Data]
5	RDRV	R_DRIVE: R output drive	C	0~63	46							
6	GDRV	G_DRIVE: G output drive	Adj.	0~63	36 [36]							
7	BDRV	B_DRIVE: B output drive	Adj.	0~63	33 [33]							
8	RCUT	R_CUTOFF: R output cutoff	C	0~63	41							
9	GCUT	G_CUTOFF: G output cutoff	Adj.	0~63	11 [11]							
10	BCUT	B_CUTOFF: B output cutoff	Adj.	0~63	22 [22]							
					Vivid		Standard		Movie		Pro	
11	WBSW	WB_SW: White balance offset on/off (Related to UTMP settings)		0, 1	0 (Cool)		0 (Neutral)		1 (Warm)		0	
12	SBOF	Offset for SBRT		0~(63)~127	63		63		63		63	
13	RDOF	Offset for RDRV		0~(63)~127	63		63		63**		63	**: The color temperature offset data
14	GDOF	Offset for GDRV		0~(63)~127	63		63		66**		63	
15	BDOF	Offset for BDRV		0~(63)~127	63		60		73**		63	
16	RCOF	Offset for RCUT		0~(63)~127	63		63		63**		63	
17	GCOF	Offset for GCUT		0~(63)~127	63		63		66**		63	
18	BCOF	Offset for BCUT		0~(63)~127	63		60		75**		63	

Note:
The same CXA2150 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#3-2): CXA2150P-2 {Picture Controls: P2}

Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)
Slave Address: 86h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)						Comment
0	**ALBK**	PIC_ON: RGB output including AKB reference pulse on/off (Setting = 0 for power on reset) --- G2 adjustment register setting	C	0, 1	1						C: Common data
1	**RGBS**	R_ON/G_ON/B_ON: R/G/B outputs on/off (AKB reference pusle can not be turned on/off.) (0,1/0,1/0,1)	C	0~7	7						
2	**BLKB**	BLK_BTM: RGB output bottom limit level (Black Limit) (AKB reference pusle DC-voltage)	C	0~3	3						
3	**LIML**	PLIMIT_LEV: Threshold level for excessively high inputs (White Limit	C	0~3	0						
4	**PABL**	P_ABL: DC-level in RGB output detection for PEAK ABL	C	0~15	15						
5	**SABL**	S_ABL: S_ABL gain	C	0~3	0						
6	**AGNG**	AGING_W/AGING_B: AGING_W/AGING_B modes on/off (Set luminance to 80/01IRE flat-field signal.)	C	0~3 (0,1/0,1)	0						
7	**AKBO**	AKBOFF: Automatic/Manual-Cutoff setting	C	0, 1	0						
					U/VHF & Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P		Video1~4: CVideo1~4 & SVideo1~3
8	**SYPH**	SYNC_PHASE: Hsync delay with respect to Video (100%: H-period)		0~3	0	0	0	0	0		
9	**CLPH**	CLP_PHASE: Internal clamp pulse phase (100%: H-period)		0~3	3	3	3	3	3		
10	**CLGA**	CLP_GATE: Switch for the gated internal clamp pulse with Hsync input		0, 1	0	0	0	0	0		
11	**JAXS**	JAXIS: Color axis switch		0, 1	0						
12	**BLKO**	BLKO: Blanking switch		0, 1	0						

Note:
The same CXA2150 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#3-3): CXA2150P-3 {Picture Controls: P3} (Part-1/3)

Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)
Slave Address: 86h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs) Picture Mode: Vivid							Comment
					UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
0	**SYSM**	SYSTEM: Signal bandwidth setting		0~3	1	1	1	1	1	2	2	These settings continue to the next page. CV: CVideo1~4 SV: SVideo1~3 C: Common data ( ): Settings at center
1	**UVML**	VM_LEV: VM_OUT level	C	0~3	3							
2	**VMMO**	System Micro pin#40		0, 1	0	0	0	0	0	0	0	
3	**VMCR**	VM_COR: VM_OUT coring level		0~3	3	3	3	3	3	3	3	
4	**VMLM**	VM_LMT: VM_OUT limit level		0~3	3	3	3	3	3	3	3	
5	**VMF0**	VM_F0: VM_f0		0~3	2	2	2	2	2	2	2	
6	**VMDL**	VM_DLY: VM_OUT phase (defined by phase difference from R_OUT)		0~3	3	3	3	3	3	1	3	
7	**SHOF**	Offset for USHP = SHOF x 4		0~3	2	2	2	3	3	0	2	
8	**SHF0**	SHP_F0: Sharpness circuit f0		0, 1	1	1	1	1	1	0	1	
9	**PROV**	PRE/OVER: Y signal pre/over-shoot ratio		0~3	3	3	3	1	3	0	3	
10	**F1LV**	SHP_F1: Sharpness for higher f0 (4.2/5.6 MHz @ NORMAL mode)		0~3	0	3	3	3	3	3	3	
11	**CDSP**	SHP_CD: Sharpness in part of high color saturation		0~3	3	3	3	3	3	3	3	
12	**LTLV**	LTI_LEV: Luminance transient improvement (LTI)		0~3	3	3	3	3	3	3	3	
13	**LTMD**	LTI_MODE: LTI mode setting		0~3	0	0	0	0	0	0	1	
14	**CTLV**	CTI_LEV: Chrominance transient improvement (CTI)		0~3	0	0	0	0	0	2	0	
15	**CTMD**	CTI_MODE: CTI mode setting		0~3	0	0	0	0	0	0	0	
16	**UBOF**	Offset for UBRT (Picture clarity adjustment)		0~(7)~15	11	11	11	11	11	14	11	
17	**UCOF**	Offset for UCOL = UCOF x 2 (Picture clarity adjustment)		0~3	3	3	3	3	3	0	3	
18	**UHOF**	Offset for UHUE (Picture clarity adjustment)		0~3	2	2	2	2	2	2	2	
19	**MIDE**	MID enhancement setting		0~15	3	3	3	7	11	---	---	

Note:
The same CXA2150 service data are used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#3-3): CXA2150P-3 {Picture Controls: P3} (Part-2/3)

Register No & Name	Data Initial/Average Settings (32V&36V CRTs) Picture Mode: Standard							Data Initial/Average Settings (32V&36V CRTs) Picture Mode: Movie							Data Initial/Average Settings (32V&36V CRTs) Picture Mode: Pro							Note
	UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
#0 **SYSM (cont.)**	1	1	1	1	1	2	2	1	1	1	1	1	2	2	1	1	1	1	1	2	2	
#1 **UVML (cont.)**	3							0							0							
#2 **VMMO (cont.)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#3 **VMCR (cont.)**	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
#4 **VMLM (cont.)**	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
#5 **VMF0 (cont.)**	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
#6 **VMDL (cont.)**	1	3	3	3	3	1	3	1	1	1	1	1	1	3	1	1	1	1	1	1	3	
#7 **SHOF (cont.)**	0	3	3	3	3	0	2	0	3	3	3	3	0	3	0	1	1	1	1	0	1	
#8 **SHF0 (cont.)**	0	1	1	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
#9 **PROV (cont.)**	3	3	3	1	3	0	3	3	3	3	1	3	0	3	3	3	3	1	3	0	3	See next page
#10 **F1LV (cont.)**	0	3	3	3	3	3	3	0	0	0	0	0	0	3	0	0	0	0	0	0	3	
#11 **CDSP (cont.)**	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#12 **LTLV (cont.)**	2	2	2	2	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#13 **LTMD (cont.)**	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	
#14 **CTLV (cont.)**	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#15 **CTMD (cont.)**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#16 **UBOF (cont.)**	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
#17 **UCOF (cont.)**	3	3	3	3	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#18 **UHOF (cont.)**	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#19 **MIDE (cont.)**	2	2	2	6	10	---	---	1	1	1	5	9	---	---	0	0	0	4	8	---	---	

Note:
The same CXA2150 service data are used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#3-3): CXA2150P-3 {Picture Controls: P3} (Part-3/3)

Register No & Name	Data Initial/Average Settings (32V&36V CRTs) SNNR=0 (Offset)	SNNR=1 (Offset)	SNNR=2 (Offset)	SNNR=3 (Offset)					Comment
#1 **UVML (cont.)**	0	0	0	0					
#3 **VMCR (cont.)**	0	+ 1	+ 2	+ 3					
#10 **F1LV (cont.)**	0	- 1	- 2	- 3					
#11 **CDSP (cont.)**	0	0	0	0					
#12 **LTLV (cont.)**	0	0	0	0					
#14 **CTLV (cont.)**	0	0	0	0					
#19 **MIDE (cont.)**	0	0	0	0					

Note:
The same CXA2150 service data are used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-1/4)

Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA) Slave Address: 86h
Device Name: CXD2085M { ID-1 Decoder / SONY } / IC3603 (B-board) / P/N: 8-752-395-13 (SD#: S98511B) Slave Address: 40h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)							Comment
					Vivid	Standard	Movie	Pro				Settings for 36V CRTs are used for initial settings.
					40V	40V	40V					
0	**UPIC**	PICTURE: Picture		0~63	63	50	31	31				
1	**UBRT**	BRIGHT: Brightness		0~63	22	26	28	31				
2	**UCOL**	COLOR: Color		0~63	44	35	33	31				
3	**UHUE**	HUE: Hue		0~63	31	31	31	31				
		SNNR Setting-related Controls for USHP										This setting continues to the next page.
4	**USHP**	SHARPNESS: Sharpness		0~63	42	48	34	31				
5	**UTMP**	Color Temperature (0: Warm, 1: Neutral, 2: Cool)		0~2	2	1	0	1				
6	**UDCL**	DCOL: Dynamic color setting		0~3	2	2	2	2				
					Picture Mode: Vivid / Standard / Movie							These settings continue to the next page.
					UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P			
7	**AXIS**	COL_AXIS: Color matrix setting		0~3	3	3	3	3	3			
					Picture Mode: Vivid							Video1~4: CVideo1~4 & SVideo1~3
					UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P			
8	**UGAM**	GAMMA/GAMMA_L: RGB output GAMMA correction setting ($B_{7\sim6}$) GAMMA_L: Slight GAMMA correction on/off (B_0)		0~7 (0~3/0,1)	7	7	7	7	7			
9	**AGAM**	GAMMA/GAMMA_L (Av Pro user control) --- Void Data		0~7 (0~3/0,1)	---							
		UGAM Setting-related Controls for GSBO, GCOO, GHUO			UGAM = 7	UGAM = 6	UGAM = 5	UGAM = 4	UGAM = 3	UGAM = 2	UGAM = 1	These settings continue to the next page.
10	**GSBO**	Offset for SBRT (8 types of GSBO data based on UGAM values)		0~3	0	0	0	0	0	0	0	
11	**GCOO**	Offset for UCOL		0~3	0	0	0	0	0	0	0	
12	**GHUO**	Offset for UHUE		0~3	0	0	0	0	0	0	0	
					Picture Mode: Vivid							
					UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P			
13	**UBLK**	Item # 15~18 pack FI data controls		0~7	7	7	7	7	7			
14	**ABLK**	(Av Pro user control) --- Void Data	---	0~7	0 (Void data)							
		UBLK Setting-related Controls for DCTR										
15	**DCTR**	DC_TRAN: Y signal DC transmission (8 types of DCTR data based on UBLK values)		0~3	3	3	3	3	2			These settings continue to the next page. ( ): Settings at center
16	**DPIC**	DPIC_LEV: Y signal AUTO PEDESTAL level		0~3	2	2	2	2	1			
17	**DSBO**	Offset for SBRT		0~(7)~15	7	7	7	7	7			
18	**ABLM**	ABL_MODE: ABL mode		0~3	1	1	1	1	1			

Note:
The same CXA2150 service data are used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-2/4)

Register No & Name	Data Initial/Average Settings (32V&36V CRTs)					Data Initial/Average Settings (32V&36V CRTs)					Data Initial/Average Settings (32V&36V CRTs)					Note
SNNR Setting (-Offset)	SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3												
#4 **USHP (cont.)**	0	1	3	4												
	Picture Mode: Pro															
	UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P											
#7 **AXIS (Cont.)**	3	3	3	3	3											
	Picture Mode: Standard					Picture Mode: Movie					Picture Mode: Pro					
	U/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	U/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	U/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
#8 **UGAM (Cont.)**	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	
	UGAM = 0															
#10 **GSBO (cont.)**	0															
#11 **GCOO (cont.**	0															
#12 **GHUO (cont.**	0															
	Picture Mode: Standard					Picture Mode: Movie					Picture Mode: Pro					
	UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
#13 **UBLK (Cont.)**	4	4	4	4	4	1	1	1	1	1	0	0	0	0	0	
#15 **DCTR (Cont.)**	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	See next pages
#16 **DPIC (Cont.)**	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	
#17 **DSBO (Cont.**	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
#18 **ABLM (Cont.**	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	

Note:
The same CXA2150 service data are used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-3/4)

Register No & Name	Data Initial/Average Settings (32V&36V CRTs)								Comment
	UBLK = 7	UBLK = 6	UBLK = 5	UBLK = 4	UBLK = 3	UBLK = 2	UBLK = 1	UBLK = 0	
#15 **DCTR (Cont.)**	3	2	2	2	1	1	1	1	
#16 **DPIC (Cont.)**	2	3	2	1	3	2	1	0	
#17 **DSBO (Cont.)**	7	7	7	7	7	7	7	7	
#18 **ABLM (Cont.)**	1	0	0	1	0	0	0	0	

Note:
The same CXA2150 service data are used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-4/4)

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)					Comment
19 **ABLT**	ABL_TH: ABL correct detection Vth control		0~15	0					
				Full	Vcomp1		Vcomp2		
20 **ABLC**	Control of CXA2026 {0Ch -- DAC0} (*)		0~255	0	66				
21 **EPOF**	Offset for UPIC = EPOF x (UPIC/63) (for power save) --- Void Data	---	0~31						
	ID-1 and P&P Modes								
22 **SPOF**	Offset for UPIC = SPOF x (UPIC/64) --- Data Not Used	---	0~31	0 (Not used)					
				UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
23 **SCON**	SUB_CONTRAST: SUB PICTURE		0~15	8	8	6	4	8	
24 **CLOF**	Offset for UCOL		0~(7)~15	8	10	9	7	8	
25 **HUOF**	Offset for UHUE		0~7~15	4	3	3	3	4	
	CXD2085 Service Controls								
26 **IDSW**	Switch for activating the selection in #27 DATA	C	0, 1	0					
				Full	Vcomp1		Vcomp2		
27 **DATA**	Selection of geometry-forced vertical compression modes	C	0~3	0	1		2		

Full: 480p/960i (4x3)
Vcomp1: 480p/960i (16x9)
Vcomp2: 1080i (16x9)

( ): Settings at center
C: Common data

Note:
The same CXA2150 service data are used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#4-1): CXA2150D-1 {Deflection Controls: D1}

Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)
Slave Address: 86h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
					Full	Vcomp1	Vcomp2	
0	**VPOS**	V_POSITION: Vertical position (V_DRV siganl DC-bias)	Adj.	0~(31)~63	26 [26]			Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display Adj.: Adjusted data ( ): Settings at center
1	**VSIZ**	V_SIZE: Vertical size (V_DRV signal gain)	Adj.	0~(31)~63	19 [19]			
2	**VLIN**	V_LINEARITY: Vertical linearity (Gain for V_DRV signal secondary component)	Adj.	0~(7)~15	9 [9]			
3	**VSCO**	S_CORRECTION: Vertical S-correction	Adj.	0~(7)~15	8 [8]			
4	**VCEN**	VSAW0_DCH/VSAW0_DCL: Vertical center adjustment VSAW0_DCH: VSAW0 waveform DC component (high 2-bits) VSAW0_DCL: VSAW0 waveform DC component (low 4-bits)	Adj.	0~(31)~63	31 [31]			VCEN-L(Low bit) VCEN-H(High bit)
5	**VPIN**	VSAW0_AMP: Vertical PIN adjustment VSAW0 waveform SAW component amplitude	Adj.	0~(15)~31	15 [15]	15 [Copty1]		[Copy1]: Copy the adjusted data for Full mode.
6	**NSCO**	VSAW1_DC: Rotation	Adj.	0~(7)~15	7 [7]			Either 7 or 8 can be used as the average NSCO data. (If both of them are not good, please feedback to / check with the DY attachment process.)
7	**HTPZ**	VSAW1_AMP: Horizontal trapezoid	Adj.	0~(15)~31	15 [15]			
8	**ZOOM**	ZOOM_SW: Zoom switch		0, 1	0	0		
9	**APSW**	ASP_SW: Aspect switch		0, 1	1	1	0	
10	**ASPT**	V_ASPECT: Aspect ratio	Adj.	0~63	47	47	47	
11	**SCRL**	V_SCROLL: Vertical scroll	Adj.	0~(31)~63	31	32	32	
12	**UVLN**	UP_VLIN: Upper vertical linearity		0~15	0	0		
13	**LVLN**	LO_VLIN: Lower vertical linearity		0~15	0	0		

Note:
The same CXA2150 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#4-2): CXA2150D-2 {Deflection Controls: D2}

Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)
Slave Address: 86h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
					Full	Vcomp1	Vcomp2	
0	**HCNT**	HC_PARA_DC: Horizontal center	Adj.	0~(31)~63	31 [31]			Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display ( ): Settings at center Adj.: Adjusted data [Adj.-6steps]: The adj. data for Vcomp2 mode = The adj. data for Full/Vcomp1 modes - 6 steps
1	**HPOS**	H_POSITION: Horizontal position	Adj.	0~(31)~63	31 [31]		31 [Adj.-6steps]	
2	**HSIZ**	H_SIZE: Horizontal size	Adj.	0~(31)~63	45 [45]			
3	**SLIN**	MP_PARA_DC: Horizontal S-correction	Adj.	0~15	3 [3]			
4	**MPIN**	MP_PARA_AMP: Horizontal middle pin		0~15	7			
5	**PIN**	PIN_AMP: Horizontal pin	Adj.	0~(31)~63	35 [35]			
6	**UCP**	UP_CPIN: Upper corner pin	Adj.	0~(31)~63	38 [38]			
7	**LCP**	LO_CPIN: Lower corner pin	Adj.	0~(31)~63	42 [42]			
8	**UXCG**	UP_UCG: Upper extra corner pin gain		0~3	0			Data (32Vor36V): The data for 36V are used as the Initial & CBA data. From the system micro (V 2.0), the deflection control-related initial settings are the same as their average data.
9	**LXCG**	LO_UCG: Lower extra corner pin gain		0~3	0			
10	**UXCP**	UP_UCP: Upper extra corner pin position		0~3	2			
11	**LXCP**	LO_UCP: Lower extra corner pin postion		0~3	2			
12	**XCPP**	UC_POL: Extra corner pin polarity		0, 1	0			
13	**PPHA**	PIN_PHASE: Pin phase	Adj.	0~(31)~63	15 [15]			
14	**VANG**	AFC_ANGLE: AFC angle	Adj.	0~(31)~63	31 [31]			
15	**LANG**	HC_PARA_PHASE: Linearity angle	Adj.	0~(31)~63	31 [31]			
16	**VBOW**	AFC_BOW: AFC bow	Adj.	0~(31)~63	31 [31]			
17	**LBOW**	HC_PARA_AMP: Linearity bow	Adj.	0~(31)~63	31 [31]			
18	**CPY1**	Copy Function 1: (Set CPY1=1, then press MUTE + Enter.) Copy all CXA2150D-2 data for Full mode to Vcomp1&2	Micro	0, 1	0			For engineering design use only

Note:
The same CXA2150 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#4-3): CXA2150D-3 {Deflection Controls: D3}

Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)
Slave Address: 86h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)			Comment
					Full	Vcomp1	Vcomp2	Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display
0	**HBLK**	HBLK_SW: Horizontal blanking switch		0, 1	1			
1	**LBLK**	LEFT_BLK: Left blanking		0~63	43		50	
2	**RBLK**	RIGHT_BLK: Right blanking		0~63	29		27	
3	**VBLK**	VBLK_SW: Vertical blanking switch		0, 1	1	1		
4	**TBLK**	UP_BLK: Top blanking		0~(7)~15	3	8	12	( ): Settings at center
5	**BBLK**	LO_BLK: Bottom blanking		0~(7)~15	8	13	13	
6	**VCMP**	V_COMP: Vertical compensation		0~15	0	0	0	
7	**HCMP**	H_COMP: Horizontal compensation		0~15	0	0		
8	**ACMP**	AFC_COMP: AFC compensation		0~7	0	0		
9	**PCMP**	PIN_COMP: Pin compensation		0~7	0	0		
10	**AFCM**	AFC_MODE: AFC loop gain		0~3	3		2	
11	**VFRQ**	V_FREQ: Vertical frequency		0~3	1			
12	**VON**	V_ON: Vertical drive on		0, 1	1			
13	**JUMP**	JMP_SW: Reference pulse jump swtich		0, 1	0	1		
14	**VDJP**	VDRV_SW: Vertical drive jump switch		0, 1	0	0	1	
15	**VDST**	RST_SW: Vertical drive start switch		0, 1	0	0	1	
16	**EWDC**	EW_DC: Pin DC level shift		0, 1	0	0		
17	**AKBT**	AKBTIM: AKB timing		0~31	20	20	10	

Note:
The same CXA2150 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#5): CXA2151Q

Device Name: CXA2151Q { Component I/F & Sync Separation / SONY } / IC3001 (B-board) / P/N: 8-752-093-84 (SD#: S00302B)
Slave Address: 84h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)			Comment
					480i (15.75 KHz)	480p (31.50 KHz)	1080i (33.75 KHz)	Video5&6: YPbPr-480i/480p/1080i inputs Sub: 480i input from the sub-channel Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display C: Common data
0	**MTRX**	MAT_OUT: Selection of color matrix conversion types	Micro	0~3	0	0	1	
1	**GAIN**	GAIN_SEL: Selection of output signals for SELYOUT, SELCBOUT, SELCROUT	C	0~3	0			
2	**CBGN**	YGAIN, CBGAIN, CRGAIN: The gain control of SELYOUT, SELCBOUT, & SELCROUT	C	0~15	9			
3	**VTC**	V_TC: Setting of Vsync separation time constant	C	0~3	1			
4	**HWID**	H_WIDTH: Setting of the output pulsewidth of SELHOUT	C	0~3	1			
					Video5	**Video6**	**Sub**	
5	**HSEP**	HSEP_SEL: Setting for the sync separation system		0, 1	0	0	0	
6	**TEST**	TEST: Test mode selection (for device tests)	C	0, 1	0			
7	**FRGB**	The forced RGB selection (for tests) {0: MAT_OUT = MTRX (#0), 1: MAT_OUT = MTRX (#3)}	C	0, 1	0			
					Full	**Vcomp1**	**Vcomp2**	
8	**HMSK**	Hsync masking in vertical retrace		0, 1	1		0	

Note:
The same CXA2151 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#6): D-CONV / CXA8070

Device Name: CXA8070AP { DY-Convergence Control / SONY } / IC5513 (D-board) / P/N: 8-759-595-52 (SB#: V1718)
Slave Address: DEh

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
					Full	Vcomp1	Vcomp2	
0	**SBHS**	DC AMP3: DC shift	Adj.	0~63	31 [31]	31 [31]		Full: 480p/960i (4x3) display mode Vcomp1: 480p/960i (16x9) display mode Vcomp2: 1080i (16x9) display mode Adj.: Adjusted data From the system micro (V 2.0), the deflection control-related initial settings are the same as their average data.
1	**YBWU**	VCA9: Upper Y-bow	Adj.	0~63	31 [31]	31 [31]		
2	**YBWL**	VCA10: Lower Y-bow	Adj.	0~63	31 [31]	31 [31]		
3	**RSAP**	DC AMP2: Right H-AMP	Adj.	0~63	31 [31]	31 [31]		
4	**RUBW**	VCA5: Right upper bow	Adj.	0~63	31 [31]	31 [31]		
5	**RLBW**	VCA6: Right lower bow	Adj.	0~63	31 [31]	31 [31]		
6	**LSAP**	DC AMP1: Left H-AMP	Adj.	0~63	31 [31]	31 [31]		
7	**LUBW**	VCA1: Left upper bow	Adj.	0~63	31 [31]	31 [31]		
8	**LLBW**	VCA2: Left lower bow	Adj.	0~63	31 [31]	31 [31]		
9	**CADJ**	DC AMP4: Offset adjustment (ADJ)	Adj.	0~63	48 [48]			
10	**CPY2**	Copy Function 2: (Set CPY2=1, then press MUTE + Enter.)	Micro	0, 1	0			For engineering design use only

Note:
The same CXA8070 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#7): CXA2026AS

Device Name: CXA2026AS { DQP Control / SONY } / IC5511 (D-board) / P/N: 8-752-074-64 (SD#: S95610B)
Slave Address: 8Eh

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
					Full	Vcomp1	Vcomp2	Full: 480p/960i (4x3) display mode Vcomp1: 480p/960i (16x9) display mode Vcomp2: 1080i (16x9) display mode C: Common data Adj.: Adjusted data
0	**DFON**	SW0: DF on/off switch	C	0, 1	0			
1	**DQP**	PWM: DQP phase	Adj.	0~63	23 [23]	23 [23]		
2	**DF**	DAC1: DF phase	Adj.	0~63	25 [25]	25 [25]		
3	**DQPD**	H.AMP: DQP dc-level	Adj.	0~63	34 [12]	34 [12]		
4	**QPDV**	U.CBOW, L.CBOW: DQP dc-level vertical modulation		0~63	35	31		U.CBOW = QPDV + DVS L.CBOW = QPDV - DVS
5	**DVS**	U.CBOW, L.CBOW: DQP dc-level tilt		0~(3)~7	0	0		
6	**QPDY**	U.MBH,L.MBH: DQP dc-level at top & bottom areas		0~63	15	15		( ): Settings at center
7	**DQPA**	DC SHIFT: DQP amplitude	Adj.	0~63	13 [10]	13 [10]	13 [10]	Data (36V) is used as Initial/CBA data. From the system micro (V 2.0), most deflection control-related initial settings are the same as their average data.
8	**QPAV**	U.YBOW, LYBOW: DQP amplitude vertical modulation		0~63	38	34		U.YBOW = QPAV + AVS L.YBOW = QPAV - AVS
9	**AVS**	U.YBOW, LYBOW: DQP amplitude tilt		0~7	3	3		
10	**NORM**	SW1:		0, 1	0	0		
11	**CPY3**	Copy Function 3: (Set CPY3=1, then press MUTE + Enter.)	Micro	0, 1	0			For engineering design use only
12	**200V**	H.DUTY, H.TILT: 200V regulator adjustment	Adj.	0~63	31 [31]			

Note:
The same CXA2026 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#8): Audio Processing (AP) / BH3868AFS

Device Name: BH3868AFS { Audio Processor / ROHM } / IC7001 (A-board) / P/N: 8-759-678-92 (SBorSD#: NA)
Slave Address: 82h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0	**SVOL**	Volume: Offset for Volume		0~3	0	
1	**SBAL**	Balance: Offset for Balance		0~(3)~7	7	( ): Settings at center
2	**SBAS**	Bass: Offset for Bass		0~(3)~7	10	
3	**STRE**	Treble: Offset for Treble		0~(3)~7	3	
4	**BBLP**	BBE lowpass filter		0~15	6	
5	**BBHP**	BBE highpass filter		0~15	7	
6	**SREF**	Surround effect		0~7	11	
7	**AGC**	Auto gain control		0, 1	0	
8	**BBE**	BBE on/off		0, 1	1	

Note:
The same AP service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#9): TruSurround (TRUS) / NJM2180

Device Name: NJM2180M { TruSurround 3D-Audio Processor / JRC } / IC4101 (S-board) / P/N: 8-759-686-15 (SB#: V9072)
Device Control: Controlled via CXA1315M (Audio Control D/A, IC4103/S-board, Slave Address: 48h) / P/N: 8-752-059-23 (SD#: S88Z45B)

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0	**TS**	TruSurround effect selection		0~3	2	C: Common data
1	**DMY1**	Dummy data (No functions)	C	0~255	0	DMY1 is used to fulfil the minimum requirement of 2 control items in each service control category.

Note:
The same TRUS service data is used for DX1A-2001&2000.

DX1A-2001* SERVICE LIST (#10): MID1 (Common Data)

Device Name: CXD9509AQ { MID-XA / Fujitsu & SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)
Slave Address: 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 6-800-050-01 (SB#: V4216) }
MID-XA Micro (MASK type): MB94918RPF-G-137-BND, MID-XA Software: Version 12/08/00, (P/N: 6-800-050-01)

Register No & Name		Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V/36V/40V CRTs)			Comment
						MID Mode: All (Single & P&P & Favorite)			
0	**DHPH**	Horizontal phase of the active display area	d_h_phase	C	0~255	91			C: Common data
1	**DVPH**	Vertical phase of the active display area	d_v_phase	C	0~63	20			
2	**DHAR**	Horizontal size of the active display area	d_h_area	C	0~255	240			
3	**DVAR**	Vertical size of the active display area	d_v_area	C	0~255	135			
4	**DHPW**	Horizontal pulse width	d_h_pwidth	C	0~63	27			
5	**DVPW**	Vertical pulse width	d_v_pwidth	C	0~7	7			
6	**DYCD**	Delay of YC signal output	d_yc_delay	C	0~63	2			
7	**DYSD**	Delay of YS signal output	d_ys_delay	C	0~7	1			
						MID Mode: Signle & Favorite			
						Single 480i&p	Single 1080i	Favorite	
8	**MDHP**	Horizontal position of the main picture	m_dsp_hpos		0~255	33		12	
9	**MDVP**	Vertical position of the main picture	m_dsp_vpos		0~255	32	8	14	
10	**MDHS**	Horizontal size of the main picture	m_dsp_hsiz		0~255	230		158	
11	**MDVS**	Vertical size of the main picture	m_dsp_vsiz		0~255	120	135	106	
						MID Mode: P&P & Favorite			
12	**MLHP**	(Horizontal position of the multi pictures)			0~255	54			
13	**MLVP**	(Vertical position of the multi pictures)			0~255	31			
						MID Mode: Favorite			
14	**SDHP**	Horizontal position of the sub picture	s_dsp_hpos		0~255	172			
15	**SDVP**	Vertical position of the sub picture	s_dsp_vpos		0~255	14			
16	**SDHS**	Horizontal size of the sub picture	s_dsp_hsiz		0~255	61			
17	**SDVS**	Vertical size of the sub picture	s_dsp_vsiz		0~255	41			
						MID Mode: All (Single & P&P & Favorite)			
18	**DPSW**	Switch of display output PLL	dsp_pll_sw	C	0, 1	0			0: MUST be used in DX1A-2001, 1: Used in DX1A-2000
19	**MDL0**	Model selection 0 (0: 16x9, 1: 4x3)		C	0, 1	0			

Note:
* These MID1 settings are used for DX1A-2001 ONLY. The DPSW setting was changed from 1 in DX1A-2000 to 0 in DX1A-2001.

DX1A-2001&2000 SERVICE LIST (#11): MID2 (DRC-in Data)

Device Name: CXD9509AQ { MID-XA / Fujitsu & SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)
Slave Address: 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 6-800-050-01 (SB#: V4216) }
MID-XA Micro (MASK type): MB94918RPF-G-137-BND, MID-XA Software: Version 12/08/00, (P/N: 6-800-050-01)

Register No & Name		Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)						
						MID Mode: Single		MID Mode: P&P & Favorite			MID Mode: Freeze	
						YC 480i	YPbPr 480i	YC 480i	YPbPr 480i	YC 480i-(R)	YC 480i	YPbPr 480i
0	**DRHP**	Horizontal position of the active display area (DRC-in)	drc_hactv_pos		0~255	120	116	131	129	137	138	136
1	**DRHS**	Hsize of the active display area (DRC-in)	drc_hactv_siz		0~255	174	174	167	167	168	165	165
2	**DRVP**	Vposition of the active display area (DRC-in)	drc_vactv_pos		0~63	38	38	53	53	53	53	53
3	**DRVS**	Vertical size of the active display area (DRC-in)	drc_vactv_siz		0~255	120	120	112	112	112	112	112

Note:
The same MID2 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#12): MID3 (VDO-in Data) (Part-1/2)

Device Name: CXD9509AQ { MID-XA / Fujitsu & SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)
Slave Address: 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 6-800-050-01 (SB#: V4216) }
MID-XA Micro (MASK type): MB94918RPF-G-137-BND, MID-XA Software: Version 12/08/00, (P/N: 6-800-050-01)

Register No & Name		Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Comment
						MID Mode: Single				
							YPbPr 480P		Dummy 480i	Dummy-480i settings are used for No Signal cases.
0	**VDHP**	Horizontal position of the active display area (VDO-in)	vdo_hactv_pos		0~255		122		179	These settings continue to the next page.
1	**VDHS**	Horizontal pixel size of the active display area (VDO-in)	vdo_hactv_pos		0~255		159		199	
2	**VDVE**	Vertical even position of the active display area (VDO-in)	vdo_vactv_evn		0~63		39		24	
3	**VDVS**	Vertical line size of the active display area (VDO-in)	vdo_vactv_pos		0~255		129		56	
						YC 480i	YPbPr 480P	YPbPr 1080i	Dummy 480i	
4	**VDVO**	Vertical odd position of the active display area (VDO-in)	vdo_vactv_odd		0~3	0	0	0	0	
5	**VCPO**	Clamp pulse output timing (VDO-in)	vdo_clp_pos		0~255	95	70	40	90	
6	**VCWD**	Clamp pulse width (VDO-in)	vdo_clp_wdt		0~7	3	3	3	3	
7	**VYCD**	Analog input YC delay (VDO-in)	vdo_yc_delay		0~63	0	0	0	0	
							YPbPr 480P	YPbPr 1080i		
8	**VSTP**	PD stop line count of external PLL (VDO-in)	vdo_pll_stop		0~255		119	160		
9	**VSTT**	PD start line count of external PLL (VDO-in)	vdo_pll_strt		0~15		7	0		
						MID Mode: All (Single & P&P & Favorite)				
10	**VHSC**	Horizontal sync cycle (VDO-in)	vdo_hsync_cyc		0~255	130				

Note:
The same MID3 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#12): MID3 (VDO-in Data) (Part-2/2)

Register No & Name	Data Initial Setting (32V&36V CRTs)				Data Initial Setting (32V&36V CRTs)			Comment
	MID Mode: P&P / Favorite				MID Mode: FREEZE			
	YC 480i	YPbPr 480P	YPbPr 1080i	Dummy 480i	YPbPr 480P	YPbPr 1080i	Dummy 480i	Dummy-480i settings are used for No Signal cases.
#0 **VDHP (cont.)**	197	127	91	179	131	98	179	
#1 **VDHS (cont.)**	219	154	151	199	153	149	199	
#2 **VDVE (cont.)**	24	53	37	24	53	37	24	
#3 **VDVS (cont.)**	56	112	126	56	112	126	56	

Note:
The same MID3 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#13): MID5 (Picture Data: MIDE) (Part-1/4)

Device Name: CXD9509AQ { MID-XA / Fujitsu & SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)
Slave Address: 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 6-800-050-01 (SB#: V4216) }
MID-XA Micro (MASK type): MB94918RPF-G-137-BND, MID-XA Software: Version 12/08/00, (P/N: 6-800-050-01)

Register No & Name		Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				
						UHF/VHF & CVideo				YPbPr-480i (DVD)				
		Settings for P&P (Main)				Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid	
0	**POP**	Selection of service data tables (Table #: 0~15)			0~15	0	1	2	3	4	5	6	7	
1	**MHLY**	Y coefficient code of Horizontal LPF (M)	m_hlpf_ycoef		0~3	1	1	1	1	1	1	1	1	
2	**MHLC**	C coefficient code of Horizontal LPF (M)	m_hlpf_ccoef		0~3	3	3	3	3	3	3	3	3	
3	**MVLY**	Y coefficient code of Vertical LPF (M)	m_vlpf_ycoef		0~3	0	0	0	0	0	0	0	0	
4	**MVLC**	C coefficient code of Vertical LPF (M)	m_vlpf_ccoef		0~3	0	0	0	0	0	0	0	0	
5	**MHYR**	Y coreing code of horizontal enhancement (M)	m_henh_ycore		0~3	0	0	0	0	0	0	0	0	
6	**MHYL**	Y cliping code of horizontal enhancement (M)	m_henh_yclip		0~3	1	1	1	1	1	1	1	1	
7	**MHYE**	Y level code of horizontal enhancement (M)	m_henh_yenh		0~7	4	0	0	0	3	0	0	0	
8	**MHYO**	Y coefficient code of horizontal enhancement (M	m_henh_ycof		0, 1	1	1	1	1	1	1	1	1	
9	**MHCR**	C coreing code of horizontal enhancement (M)	m_henh_ccore		0~3	0	0	0	0	0	0	0	0	
10	**MHCL**	C cliping code of horizontal enhancement (M)	m_henh_cclip		0~3	1	1	1	1	1	1	1	1	
11	**MHCE**	C level code of horizontal enhancement (M)	m_henh_cenh		0~7	0	0	0	0	0	0	0	0	
12	**MHCO**	C coefficient code of horizontal enhancement (M	m_henh_ccof		0, 1	1	1	1	1	1	1	1	1	
13	**MVYR**	Y coreing code of vertical enhancement (M)	m_venh_ycore		0~3	0	0	0	0	0	0	2	2	
14	**MVYL**	Y cliping code of vertical enhancement (M)	m_venh_yclip		0~3	1	1	1	1	1	1	1	1	
15	**MVYE**	Y level code of vertical enhancement (M)	m_venh_yenh		0~7	0	0	0	0	0	0	2	5	
16	**MVCR**	C coreing code of vertical enhancement (M)	m_venh_ccore		0~3	0	0	0	0	0	0	0	0	
17	**MVCL**	C cliping code of vertical enhancement (M)	m_venh_cclip		0~3	1	1	1	1	1	1	1	1	
18	**MVCE**	C level code of vertical enhancement (M)	m_venh_cenh		0~7	0	0	0	0	0	0	0	0	

See the next page.

Note:
The same MID5 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#13): MID5 (Picture Data: MIDE) (Part-2/4)

Register No & Name	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Comment
	YPbPr-480p				YPbPr-1080i				
	Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid	
#0 **POP (cont.)**	8	9	10	11	12	13	14	15	
#1 **MHLY (cont.)**	1	1	1	1	1	1	1	1	
#2 **MHLC (cont.)**	3	3	3	3	3	3	3	3	
#3 **MVLY (cont.)**	0	0	0	0	0	0	0	0	
#4 **MVLC (cont.)**	0	0	0	0	0	0	0	0	
#5 **MHYR (cont.)**	0	0	0	0	0	0	0	0	
#6 **MHYL (cont.)**	1	1	1	1	1	1	1	1	
#7 **MHYE (cont.)**	4	0	0	0	4	0	0	0	
#8 **MHYO (cont.)**	1	1	1	1	1	1	1	1	
#9 **MHCR (cont.)**	0	0	0	0	0	0	0	0	
#10 **MHCL (cont.)**	1	1	1	1	1	1	1	1	
#11 **MHCE (cont.)**	0	0	0	0	0	0	0	0	
#12 **MHCO (cont.)**	1	1	1	1	1	1	1	1	
#13 **MVYR (cont.)**	0	0	2	2	0	0	0	0	
#14 **MVYL (cont.)**	1	1	1	1	1	1	1	1	
#15 **MVYE (cont.)**	0	0	2	5	0	0	0	0	
#16 **MVCR (cont.)**	0	0	0	0	0	0	0	0	
#17 **MVCL (cont.)**	1	1	1	1	1	1	1	1	
#18 **MVCE (cont.)**	0	0	0	0	0	0	0	0	

Note:
The same MID5 service data are used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#13): MID5 (Picture Data: MIDE) (Part-3/4)

Register No.&Name		Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				
		Settings for P&P (Sub)				UHF/VHF & CV				YPbPr-480i (DVD)				
						Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid	
0	**POP**	Selection of service data tables (Table #: 0~15)			0~15	0	1	2	3	4	5	6	7	
19	**SHLY**	Y coefficient code of Horizontal LPF (S)	s_hlpf_ycoef		0~7	0	0	0	0	0	0	0	0	
20	**SHLC**	C coefficient code of Horizontal LPF (S)	s_hlpf_ccoef		0~7	0	0	0	0	0	0	0	0	
21	**SVLY**	Y coefficient code of Vertical LPF (S)	s_vlpf_ycoef		0~7	0	0	0	0	0	0	0	0	
22	**SVLC**	C coefficient code of Vertical LPF (S)	s_vlpf_ccoef		0~7	0	0	0	0	0	0	0	0	
23	**SHYR**	Y coreing code of horizontal enhancement (S)	s_henh_ycore		0~3	0	0	0	0	0	0	0	0	
24	**SHYL**	Y cliping code of horizontal enhancement (S)	s_henh_yclip		0~3	0	0	0	0	0	0	0	0	
25	**SHYE**	Y level code of horizontal enhancement (S)	s_henh_yenh		0~7	0	0	0	0	0	0	0	0	
26	**SHYO**	Y coefficient code of horizontal enhancement (S	s_henh_ycof		0, 1	0	0	0	0	0	0	0	0	
27	**SHCR**	C coreing code of horizontal enhancement (S)	s_henh_ccore		0~3	0	0	0	0	0	0	0	0	
28	**SHCL**	C cliping code of horizontal enhancement (S)	s_henh_cclip		0~3	0	0	0	0	0	0	0	0	
29	**SHCE**	C level code of horizontal enhancement (S)	s_henh_cenh		0~7	0	0	0	0	0	0	0	0	
30	**SHCO**	C coefficient code of horizontal enhancement (S	s_henh_ccof		0, 1	0	0	0	0	0	0	0	0	
31	**SVYR**	Y coreing code of vertical enhancement (S)	s_venh_ycore		0~3	0	0	0	0	0	0	0	0	
32	**SVYL**	Y cliping code of vertical enhancement (S)	s_venh_yclip		0~3	0	0	0	0	0	0	0	0	
33	**SVYE**	Y level code of vertical enhancement (S)	s_venh_yenh		0~7	0	0	0	0	0	0	0	0	
34	**SVCR**	C coreing code of vertical enhancement (S)	s_venh_ccore		0~3	0	0	0	0	0	0	0	0	
35	**SVCL**	C cliping code of vertical enhancement (S)	s_venh_cclip		0~3	0	0	0	0	0	0	0	0	
36	**SVCE**	C level code of vertical enhancement (S)	s_venh_cenh		0~7	0	0	0	0	0	0	0	0	

See the next page.

Note:
The same MID5 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#13): MID5 (Picture Data: MIDE) (Part-4/4)

Register No.&Name	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Comment
	YPbPr-480p				YPbPr-1080i				
	Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid	
#0 **POP (cont.)**	8	9	10	11	12	13	14	15	
#19 **SHLY (cont.)**	0	0	0	0	0	0	0	0	
#20 **SHLC (cont.)**	0	0	0	0	0	0	0	0	
#21 **SVLY (cont.)**	0	0	0	0	0	0	0	0	
#22 **SVLC (cont.)**	0	0	0	0	0	0	0	0	
#23 **SHYR (cont.)**	0	0	0	0	0	0	0	0	
#24 **SHYL (cont.)**	0	0	0	0	0	0	0	0	
#25 **SHYE (cont.)**	0	0	0	0	0	0	0	0	
#26 **SHYO (cont.)**	0	0	0	0	0	0	0	0	
#27 **SHCR (cont.)**	0	0	0	0	0	0	0	0	
#28 **SHCL (cont.)**	0	0	0	0	0	0	0	0	
#29 **SHCE (cont.)**	0	0	0	0	0	0	0	0	
#30 **SHCO (cont.)**	0	0	0	0	0	0	0	0	
#31 **SVYR (cont.)**	0	0	0	0	0	0	0	0	
#32 **SVYL (cont.)**	0	0	0	0	0	0	0	0	
#33 **SVYE (cont.)**	0	0	0	0	0	0	0	0	
#34 **SVCR (cont.)**	0	0	0	0	0	0	0	0	
#35 **SVCL (cont.)**	0	0	0	0	0	0	0	0	
#36 **SVCE (cont.)**	0	0	0	0	0	0	0	0	

Note:
The same MID5 service data are used for DX1A-2001&2000.

DX1A-2001* SERVICE LIST (#14): On-Screen Display (OSD)

Device Name: M306V2ME-153FP (V1.0) { System Micro (MASK type) / Mitsubishi } / IC701 (A-board)
Slave Address: 60h

System Micro (MASK type): M306V2ME-153FP, Sys-Software: Version 1.0, P/N: 6-800-051-01 (SB#: V9091)

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0	**HPOS**	OSD horizontal position	C	0~255	23	C: Common data
1	**HPOF**	Horizontal position for Favorite mode	C	0~255	33	
2	**VPOS**	OSD vertical position	C	0~255	5	
3	**VPOT**	Vertical position for P&P (Twin) mode	C	0~255	32	

Note:
* This OSD settings are used for DX1A-2001 ONLY. (DX1A-2000 uses two OSD settings based on two versions of system micros.)

DX1A-2001&2000 SERVICE LIST (#15): SNNR

Related Control Devices:
mPD64082 { 3D-Comb / NEC } / IC3501 (BC-board) / Slave Address: B8h
CXA2103Q { Chroma Decoder / SONY } / IC3048 (B-board) / Slave Address: 9Ah (Main)
CXA2150Q { CRT Driver / SONY } / IC201 (A-board) / Slave Address: 86h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting 32V&36V CRTs				Comment
0	**SNNR**	SNNR data setting		0~3	0				
1	**SNFX**	Selection of SNNR data settings; 0: Set SNNR automatically according to WSLT value (read data)	C	0, 1	0				C: ComMon data
					WSLT Data / Threthold Range				
2	**WSLT**	Noise level detection data thretholds for SNNR data (read data)		0~255	0~30	31~62	63~126	127~255	
		SNNR data used as the (-) offset settings			**SNNR Settings Based on WSL Data (- Offset Data)**				
		SNNR = 0/1/2/3 @ WSLT £ 0/31/63/127, respectively		0~3	0	1	2	3	
3	**CPFG**	Related to 3D-COMB (mPD64082) / #19 **YPFG** settings		------	0	1	2	3	
4	**CPFT**	Related to 3D-COMB (mPD64082) / #18 **YPFT** settings		------	0	0	0	0	
		SNNR data used as the direct settings		------					
5	**CCOR**	Related to 3D-COMB (mPD64082) / #20 **YHCO** settings		------	0	1	1	1	
6	**CHCG**	Related to 3D-COMB (mPD64082) / #21 **YHCG** settings		------	1	1	1	1	
		SNNR data used as the (-) offset settings							
7	**CAPG**	Related to 3D-COMB (mPD64082) / #16 **VAPG** settings		------	0	0	0	0	
8	**3SHP**	Related to CXA2103 / #6 **SHAP** settings		------	0	1	2	3	
9	**MIDD**	Related to CXA2150P-3 / #19 **MIDE** settings		------	0	1	2	3	
10	**5SHP**	Related to CXA2150P-4 / #4 **USHP** settings		------	0	1	3	4	
11	**5YF1**	Related to CXA2150P-3 / #10 **F1LV** settings		------	0	1	2	3	
12	**5CDS**	Related to CXA2150P-3 / #11 **CDSP** settings		------	0	0	0	0	
13	**5LTI**	Related to CXA2150P-3 / #12 **LTLV** settings		------	0	0	0	0	
14	**5CTI**	Related to CXA2150P-3 / #14 **CTLV** settings		------	0	0	0	0	
15	**5VML**	Related to CXA2150P-3 / #1 **UVML** settings		------	0	0	0	0	
		SNNR data used as the (+) offset settings			**SNNR Settings Based on WSL Data (+ Offset Data)**				
16	**5VMC**	Related to CXA2150P-3 / #3 **VMCR** settings		------	0	+ 1	+ 2	+ 3	

Note:
The same SNNR service data is used for DX1A-2001&2000.
Please refer to the part numbers and SBorSD numbers given in the service list for these devices.

DX1A-2001&2000 SERVICE LIST (#16): ID-1 Detection (ID1)

Device Name: CXD2085M { ID-1 Decoder / SONY } / IC3603 (B-board) / P/N: 8-752-395-13 (SD#: S98511B)
Slave Address: 40h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0	**XJGL**	XJGLK: Setting for memorizing or not the ID-1 detection status when the VTR in Fast Forward (FF) or Rewind (REW) mode	C	0, 1	0	C: Common data
1	**LNJI**	LNJ1: Setting for the multi/single-line ID-1 detection	C	0, 1	0	

Note:
The same ID1 service data is used for DX1A-2001&2000.
Other service controls related to CXD2085 (IDSW & DATA) are lised in Service List (CXA2150P-4) for easier engineering adjustment.

DX1A-2001&2000 SERVICE LIST (#17): Closed Caption Display & Parental Control (CCD&VCHIP)

Device Name: CXP85840A-039Q { CCD&Vchip Micro (MASK type) / SONY } / IC3602 (Main) & IC3601 (Sub) (B-board) / P/N: 8-752-916-40 (SD#: S97739B)
Slave Address: 68h (Main) & 6Ch (Sub)
CCD&Vchip Micro Software: Version 2.14

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0	**HPRM**	Horizontal position of CCD (Main)	C	0~255	46	C: Common data
1	**HPRS**	Horizontal position of CCD (Sub)	C	0~255	46	
2	**RND**	OSD rounding control	C	0, 1	1	
3	**CCDI**	Interuption control	C	0~7	3	
4	**CRIP**	CRI count & parity count	C	0~7	4	
5	**CRIT**	Charge/Discharge timing control for slice voltage level	C	0, 1	0	0: MASK-type micro, 1: OTP-type micro
6	**CHMK**	Horizontal mask width	C	0~63	42	
7	**FPOL**	Field polarity selection	C	0, 1	1	
8	**LANG**		C	0~3	0	
9	**DATA**	Switch for CCD service/test data	C	0, 1	0	
10	**VCHIP**	Selection of Vchip controls	C	0, 1	0	

Note:
The same CCD&VCHIP service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#18): OPTIONS (OP)

Device Name: M306V2ME-153FP (V1.0) { System Micro (MASK type) / Mitsubishi } / IC701 (A-board)
Slave Address: 60h

System Micro (MASK type): M306V2ME-153FP, Sys-Software: Version 1.0, P/N: 6-800-051-01 (SB#: V9091)

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0	**DLY1**	AC-RLY to MAIN-RLY timing = DLY1 x 50 ms	C	0~15	4	C: Common data
1	**DLY2**	Power-On Mute timing = DLY2 x 50 ms	C	0~31	12	
2	**DLY3**	DGC-RLY to MAIN-RLY timing = DLY3 x 50 ms	C	0~15	7	
3	**RAMW**	RAM monitor on/off	C	0, 1	0	

Note:
The same OP service data is used for DX1A-2001&2000.

DX1A-2001* SERVICE LIST (#19): IDENTIFICATION (ID)

Device Name: M306V2ME-153FP (V1.0) { System Micro (MASK type) / Mitsubishi } / IC701 (A-board)
Slave Address: 60h

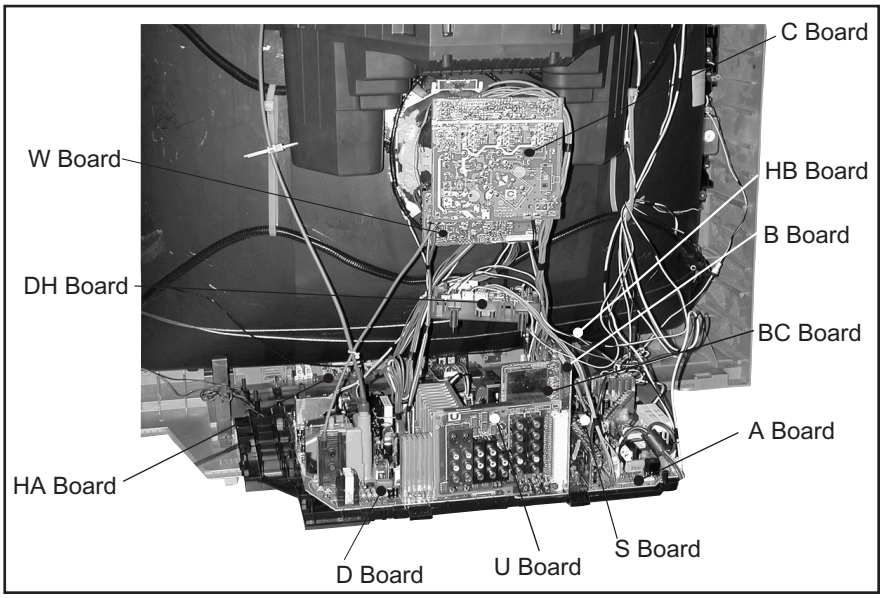
System Micro (MASK type): M306V2ME-153FP, Sys-Software: Version 1.0, P/N: 6-800-051-01 (SB#: V9091)

Register No & Name		Control Register Function & Link	Data Type	Data Range		Comment
		Shipping Destination-related Settings			KV-38DRC2 KV-38DRC2C	
0	**ID0**	Selection of OSD languages & color systems		0~255	25	
1	**ID1**	Selection of composite & s-video inputs		0~255	127	
2	**ID2**	Selection of audio-related controls		0~255	255	
3	**ID3**	Selection of basic system settings		0~255	202	
4	**ID4**	Selection of basic system settings		0~255	251	
5	**ID5**	Selection of advanced system settings		0~255	177	
6	**ID6**	Selection of sub picture-related settings		0~255	54	
7	**ID7**	Selection of some reserved settings		0~255	88	

Note:
* These ID settings are used for DX1A-2001 ONLY. (DX1A-2000 uses different ID settings.)
The system micro name, software&patch versions, and the status of NVM devices are displayed only when in this service catergory (#19): ID.

SECTION 5: DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



Circled numbers are waveform references.

The components identified by ⋈ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be necessary, replace only with the value originally used (Refer to Safety Related Adjustments on page 18).

When replacing components identified by ◪, make the necessary adjustments as indicated. If the results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment until the specified value is achieved.

When replacing the parts listed in the table below, it is important to perform the related adjustments.

5-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

All capacitors are in µF unless otherwise noted. pF : µµF 50WV or less are not indicated except for electrolytics and tantalums.

All electrolytics are in 50V unless otherwise specified.

All resistors are in ohms. K = 1000, M = 1000K.

Indication of resistance, which does not have one for rating electrical power, is as follows:

Pitch : 5mm

Rating electrical power :

$^1/_4$ W, $^1/_4$ W in resistance, $^1/_{10}$ W and $^1/_8$ W in chip resistance.

: nonflammable resistor.

: fusible resistor.

△ : internal component.

▭ : panel designation and adjustment for repair.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

Readings are taken with a color-bar signal input.

Readings are taken with a 10M digital multimeter.

Voltages are DC with respect to ground unless otherwise noted.

Voltage variations may be noted due to normal production tolerances.

All voltages are in V.

S : Measurement impossibillity.

: B+line.

: B-line. (Actual measured value may be different).

: signal path. (RF)

The components identified by shading and ⚠ symbol are critical for safety. Replace only with part number specified.

The symbol indicates a fast operating fuse and is displayed on the component side of the board. Replace only with fuse of the same rating as marked.

Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

Le symbole indique une fusible a action rapide. Doit etre remplace par une fusible de meme yaleur, comme maque.

Part Replaced (◪)	Adjustment (⋈)
D BOARD: IC6503, IC8001, IC8003, IC8004, D8004, D8014, R8016, R8021, R8028, R8041, R8042, R8044, R8072, R8073, R8074, R8077, R8078, R8080, R8081, R8082, R8091, R8095	**D BOARD**: RV8001, RV8002

REFERENCE INFORMATION

RESISTOR
- : RN METAL FILM
- : RC SOLID
- : FPRD NONFLAMMABLE CARBON
- : FUSE NONFLAMMABLE FUSIBLE
- : RW NONFLAMMABLE WIREWOUND
- : RS NONFLAMMABLE METAL OXIDE
- : RB NONFLAMMABLE CEMENT
- : ※ ADJUSTMENT RESISTOR

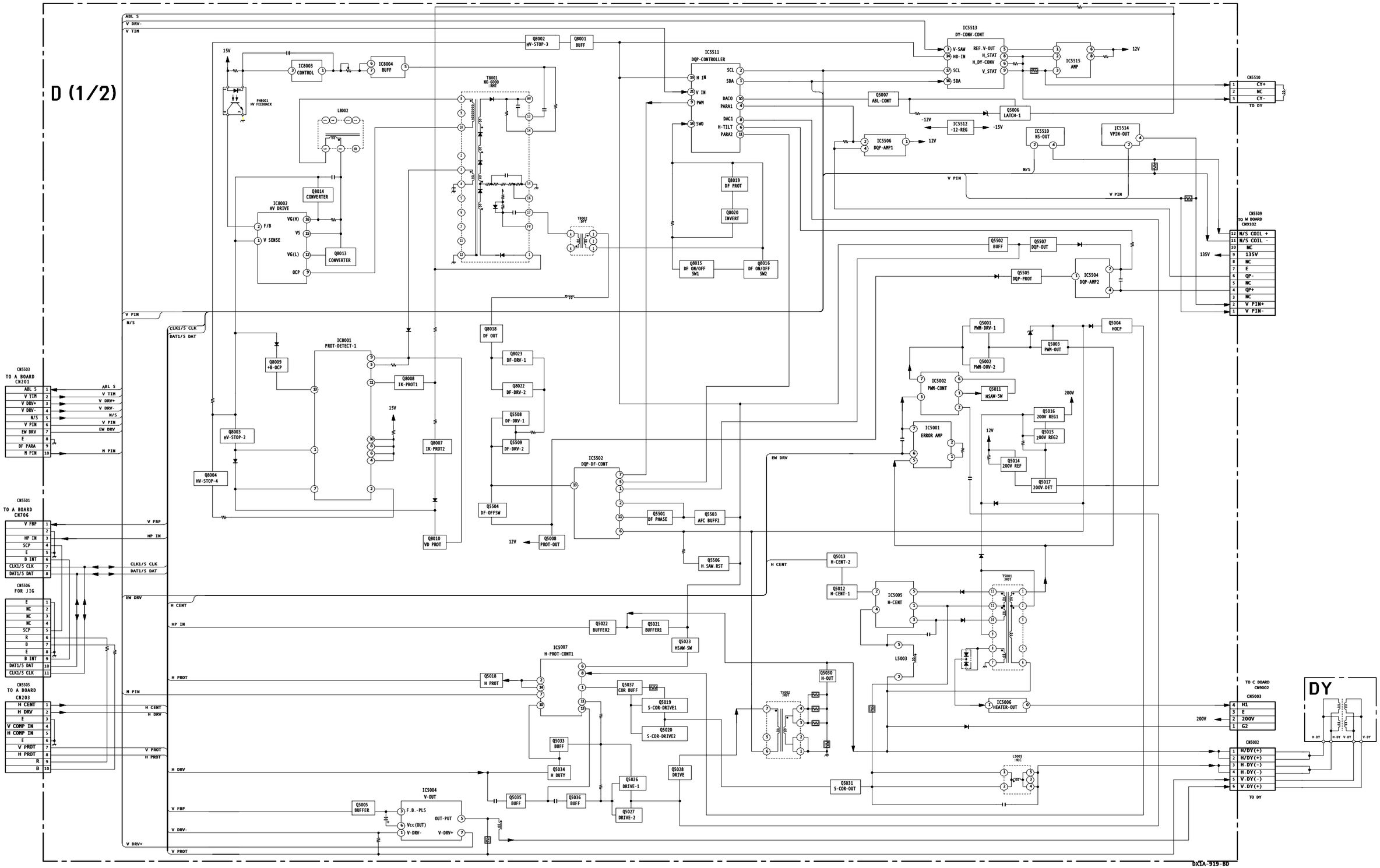
CAPACITOR
- : TA TANTALUM
- : PS STYROL
- : PP POLYPROPYLENE
- : PT MYLAR
- : MPS METALIZED POLYESTER
- : MPP METALIZED POLYPROPYLENE
- : ALB BIPOLAR
- : ALT HIGH TEMPERATURE
- : ALR HIGH RIPPLE

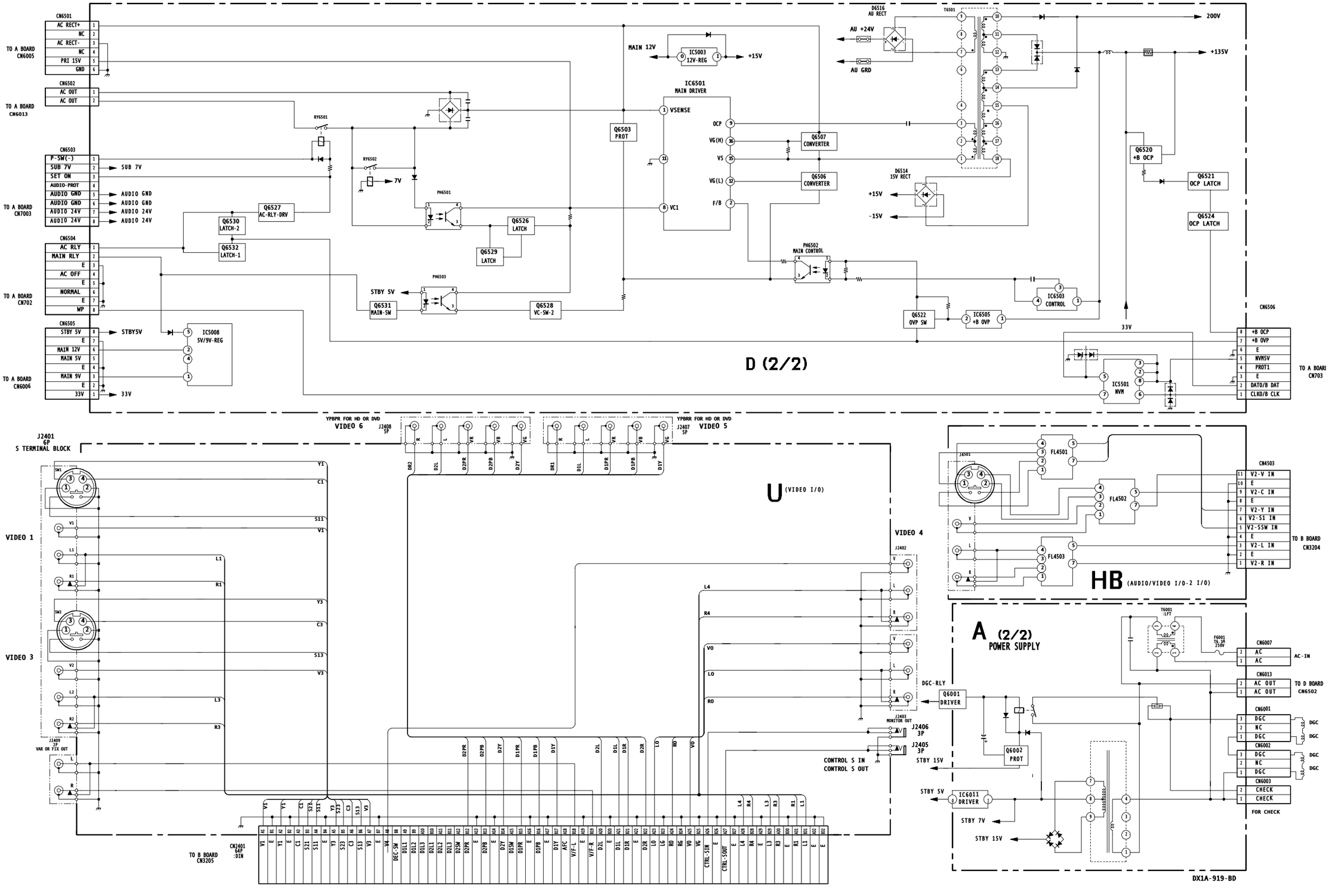
COIL
- : LF-8L MICRO INDUCTOR

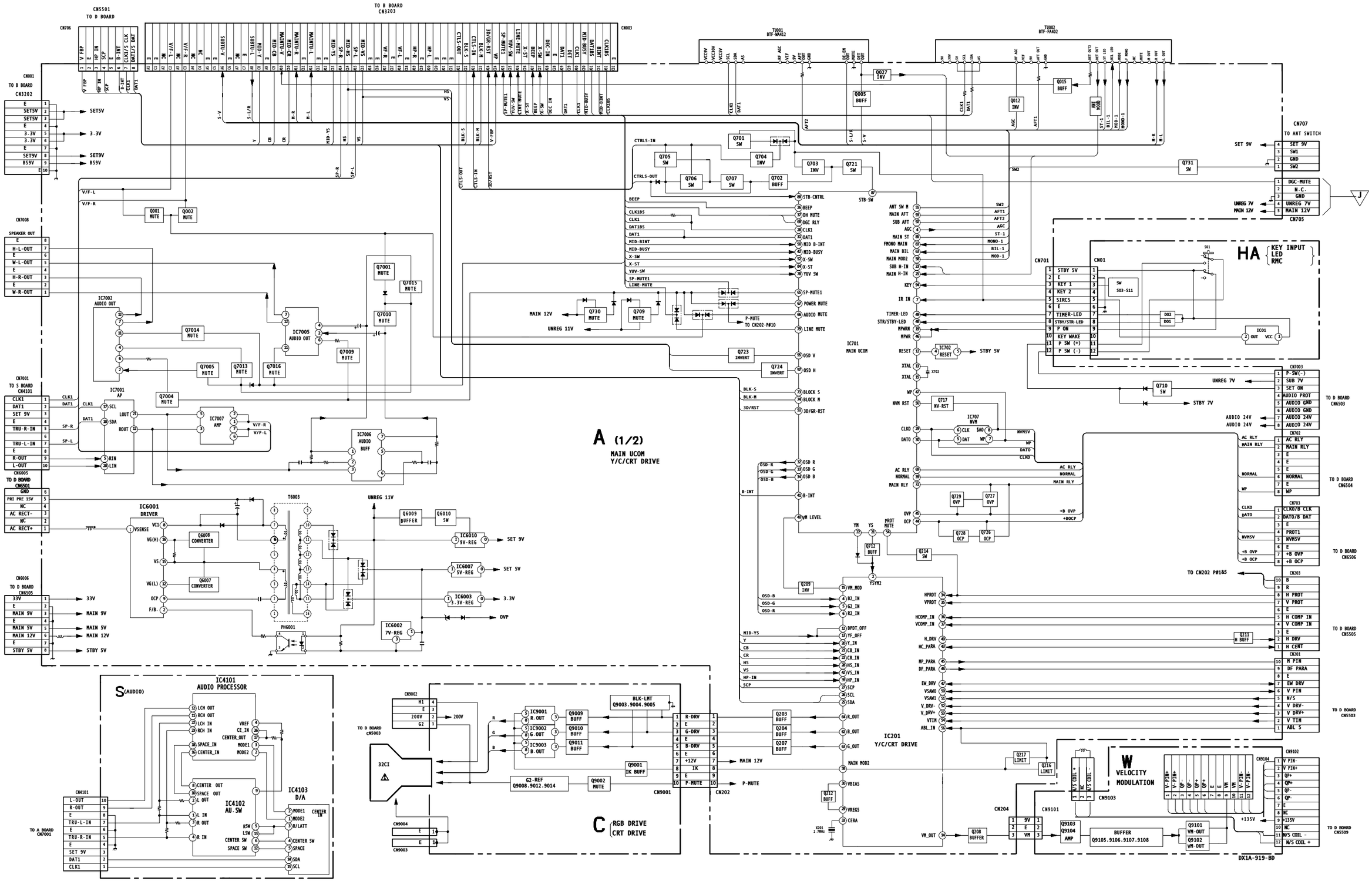
5-3. BLOCK DIAGRAM AND SCHEMATICS

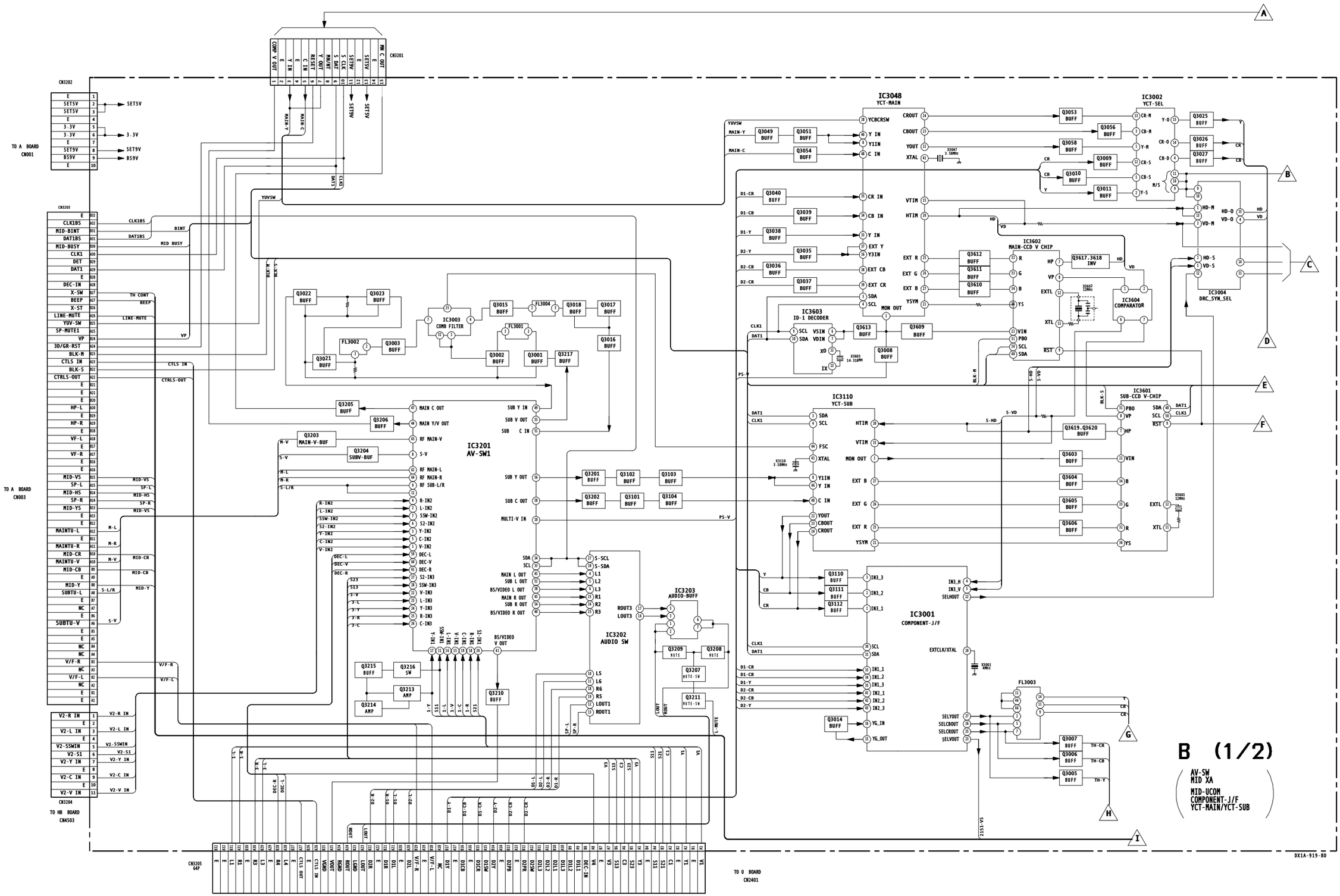
BLOCK DIAGRAM (1 OF 5)

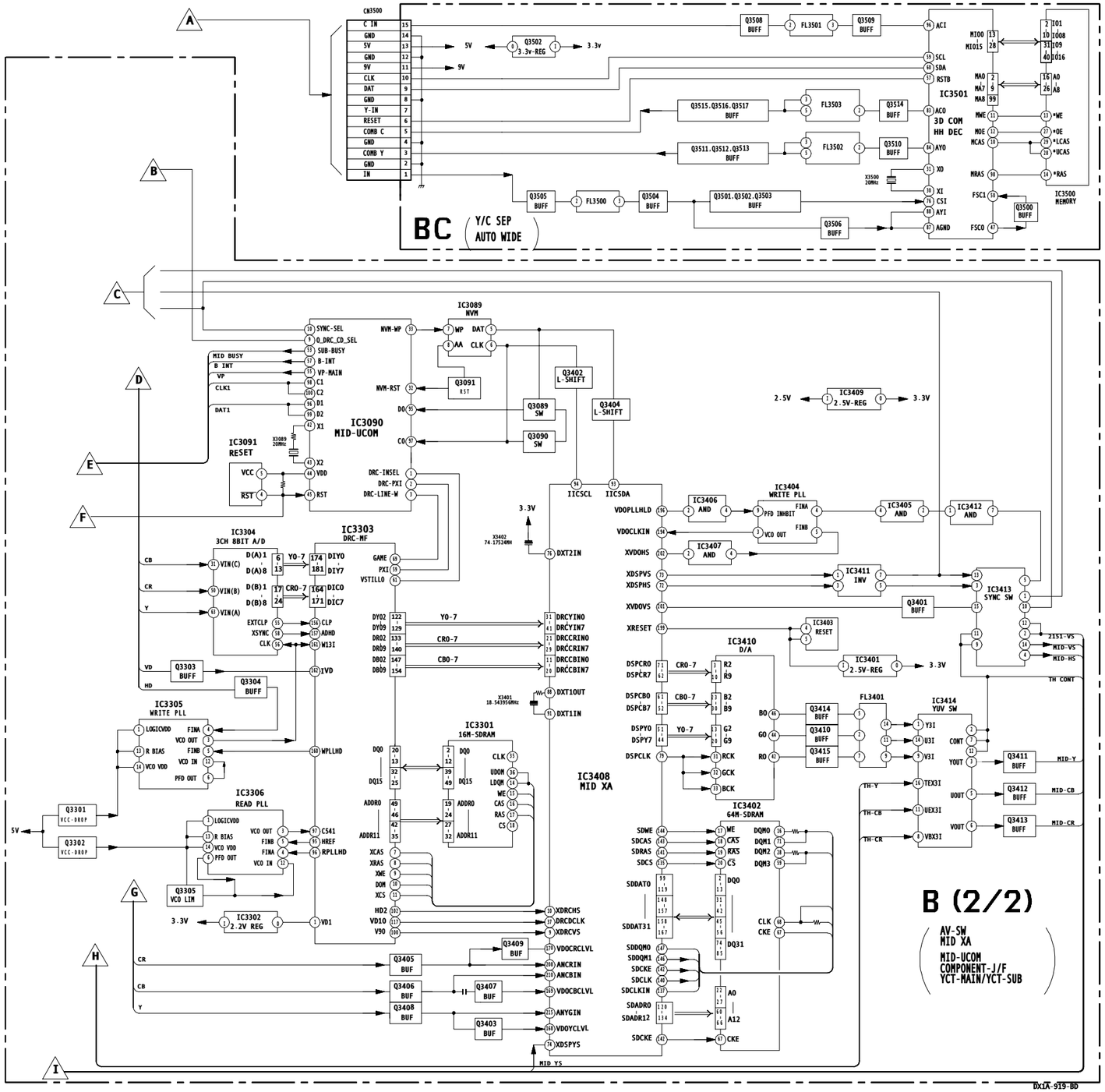
D (1/2)

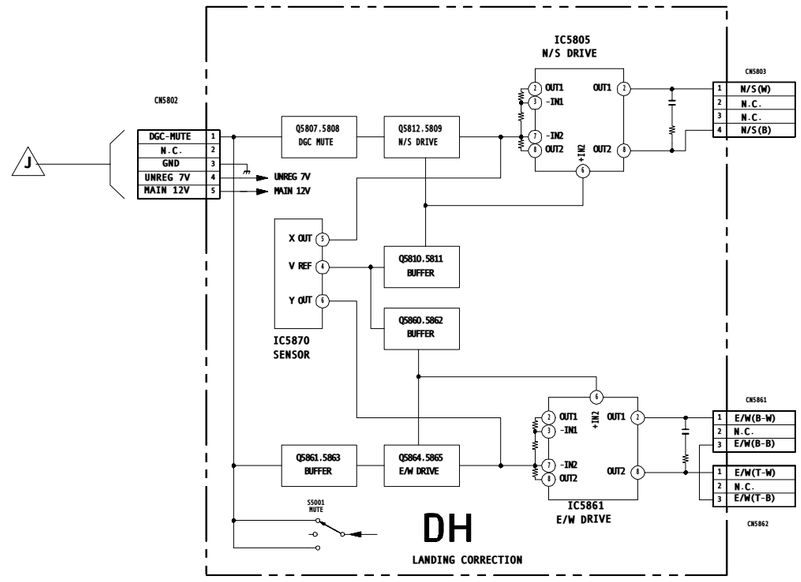



CN6501
AC RECT+ 1
NC 2
AC RECT- 3
NC 4
PRI 15V 5
GND 6
TO A BOARD CN6005
CN6502
AC OUT 1
AC OUT 2
TO A BOARD CN6013
CN6503
P-SW(-) 1
SUB 7V 2 SUB 7V
SET ON 3
AUDIO-PROT 4
AUDIO GND 5 AUDIO GND
AUDIO GND 6 AUDIO GND
AUDIO 24V 7 AUDIO 24V
AUDIO 24V 8 AUDIO 24V
TO A BOARD CN7003
CN6504
AC RLY 1
MAIN RLY 2
E 3
AC OFF 4
E 5
NORMAL 6
E 7
WP 8
TO A BOARD CN702
CN6505
STBY 5V 8 STBY5V
E 7
MAIN 12V 6
MAIN 5V 5
E 4
MAIN 9V 3
E 2
33V 1 33V
TO A BOARD CN6006
RY6501
RY6502
7V
Q6527 AC-RLY-DRV
Q6530 LATCH-2
Q6532 LATCH-1
PH6501
Q6526 LATCH
Q6529 LATCH
PH6503
STBY 5V
Q6531 MAIN-SW
Q6528 VC-SW-2
IC5008 5V/9V-REG
Q6503 PROT
MAIN 12V
IC5003 12V-REG
+15V
IC6501 MAIN DRIVER
VSENSE
OCP
VG(H)
VS
VG(L)
F/B
VC1
Q6507 CONVERTER
Q6506 CONVERTER
PH6502 MAIN CONTROL
Q6522 OVP SW
IC6505 +B OVP
IC6503 CONTROL
D6516 AU RECT
AU +24V
AU GRD
T6501
200V
+135V
33V
D6514 15V RECT
+15V
-15V
Q6520 +B OCP
Q6521 OCP LATCH
Q6524 OCP LATCH
IC5501 NVM
CN6506
+B OCP 8
+B OVP 7
E 6
NVM5V 5
PROT1 4
E 3
DAT0/B DAT 2
CLK0/B CLK 1
TO A BOARD CN703
D (2/2)
J2401 6P S TERMINAL BLOCK
VIDEO 1
VIDEO 3
J2409 2P VAR OR FIX OUT
YPBPR FOR HD OR DVD VIDEO 6 J2408 5P
YPBRR FOR HD OR DVD VIDEO 5 J2407 5P
U (VIDEO I/O)
VIDEO 4 J2402
J2403 MONITOR OUT
J2406 3P
J2405 3P
CONTROL S IN
CONTROL S OUT
TO B BOARD CN3205
CN2401 64P
HB (AUDIO/VIDEO I/O-2 I/O)
FL4501
FL4502
FL4503
J4501
CN4503
V2-V IN 11
E 10
V2-C IN 9
E 8
V2-Y IN 7
V2-S1 IN 6
V2-S5W IN 5
E 4
V2-L IN 3
E 2
V2-R IN 1
TO B BOARD CN3204
A (2/2) POWER SUPPLY
T6001 :LEFT
F6001 T6.3A 250V
CN6007
AC 2
AC 1
AC-IN
CN6013
AC OUT 2
AC OUT 1
TO D BOARD CN6502
DGC-RLY
Q6001 DRIVER
CN6001
DGC 3
NC 2
DGC 1
DGC
CN6002
DGC 3
NC 2
DGC 1
DGC
Q6002 PROT
STBY 15V
STBY 5V
IC6011 DRIVER
STBY 7V
STBY 15V
CN6003
CHECK 2
CHECK 1
FOR CHECK
DX1A-919-BD

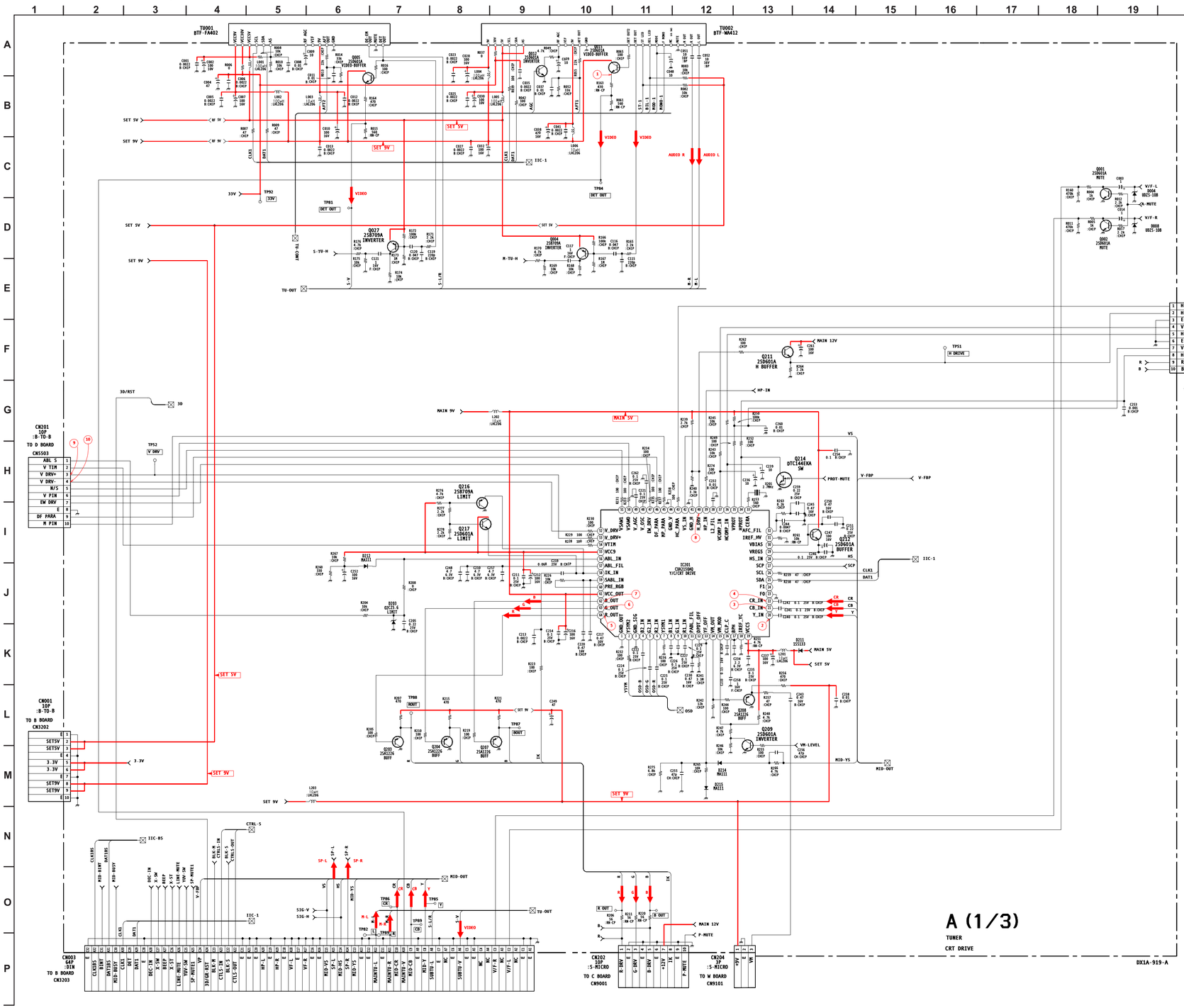

A (1/2)
MAIN UCOM
Y/C/CRT DRIVE
C RGB DRIVE
CRT DRIVE
S (AUDIO)
IC4101
AUDIO PROCESSOR
IC4102
AU.SW
IC4103
D/A
IC6001
DRIVER
IC701
MAIN UCOM
IC201
Y/C/CRT DRIVE
HA KEY INPUT
LED
RMC
W VELOCITY
MODULATION
DX1A-919-BD


CN3201
CN3202
TO A BOARD CN001
SET5V
3.3V
SET9V
BS9V
CN3203
TO A BOARD CN003
CN3204
TO HB BOARD CN4503
CN3205 64P
TO U BOARD CN2401
IC3048 YCT-MAIN
IC3002 YCT-SEL
IC3602 MAIN-CCD V CHIP
IC3603 ID-1 DECODER
IC3004 DRC_SYM_SEL
IC3604 COMPARATOR
IC3201 AV-SW1
IC3202 AUDIO SW
IC3203 AUDIO-BUFF
IC3110 YCT-SUB
IC3601 SUB-CCD V-CHIP
IC3001 COMPONENT-J/F
FL3003
B (1/2)
AV-SW
MID XA
MID-UCOM
COMPONENT-J/F
YCT-MAIN/YCT-SUB
DX1A-919-BD


CN3500
C IN
GND
5V
GND
9V
CLK
DAT
GND
Y-IN
RESET
COMB C
GND
COMB Y
GND
IN
Q3508 BUFF
FL3501
Q3509 BUFF
Q3502 3.3v-REG
Q3515.Q3516.Q3517 BUFF
FL3503
Q3514 BUFF
Q3511.Q3512.Q3513 BUFF
FL3502
Q3510 BUFF
Q3505 BUFF
FL3500
Q3504 BUFF
Q3501.Q3502.Q3503 BUFF
Q3506 BUFF
IC3501
3D COM
HH DEC
ACI
SCL
SDA
RSTB
ACO
AYO
XO
XI
CSI
AYI
AGND
IC3500 MEMORY
Q3500 BUFF
BC
Y/C SEP
AUTO WIDE
IC3089
NVM
IC3090
MID-UCOM
IC3091
RESET
IC3304
3CH 8BIT A/D
IC3303
DRC-MF
IC3305
WRITE PLL
IC3306
READ PLL
IC3301
16M-SDRAM
IC3408
MID XA
IC3402
64M-SDRAM
IC3404
WRITE PLL
IC3409
2.5V-REG
IC3302
2.2V REG
IC3410
D/A
IC3411
INV
IC3413
SYNC SW
IC3414
YUV SW
IC3403
RESET
IC3401
2.5V-REG
Q3401 BUFF
Q3402 L-SHIFT
Q3404 L-SHIFT
Q3089 SW
Q3090 SW
Q3091 RST
Q3301 VCC-DROP
Q3302 VCC-DROP
Q3303 BUFF
Q3304 BUFF
Q3305 VCO LIM
Q3405 BUF
Q3406 BUF
Q3407 BUF
Q3408 BUF
Q3409 BUF
Q3403 BUF
Q3411 BUFF
Q3412 BUFF
Q3413 BUFF
FL3401
IC3405 AND
IC3406 AND
IC3407 AND
IC3412 AND
B (2/2)
AV-SW
MID XA
MID-UCOM
COMPONENT-J/F
YCT-MAIN/YCT-SUB
DXIA-919-BD


IC5805
N/S DRIVE
CN5802
DGC-MUTE
N.C.
GND
UNREG 7V
MAIN 12V
Q5807.5808 DGC MUTE
Q5812.5809 N/S DRIVE
CN5803
N/S(W)
N.C.
N.C.
N/S(B)
IC5870
SENSOR
Q5810.5811 BUFFER
Q5860.5862 BUFFER
Q5861.5863 BUFFER
Q5864.5865 E/W DRIVE
IC5861
E/W DRIVE
CN5861
E/W(B-W)
N.C.
E/W(B-B)
E/W(T-W)
N.C.
E/W(T-B)
CN5862
S5001 ROTE
DH
LANDING CORRECTION

A BOARD SCHEMATIC DIAGRAM (1 OF 3)

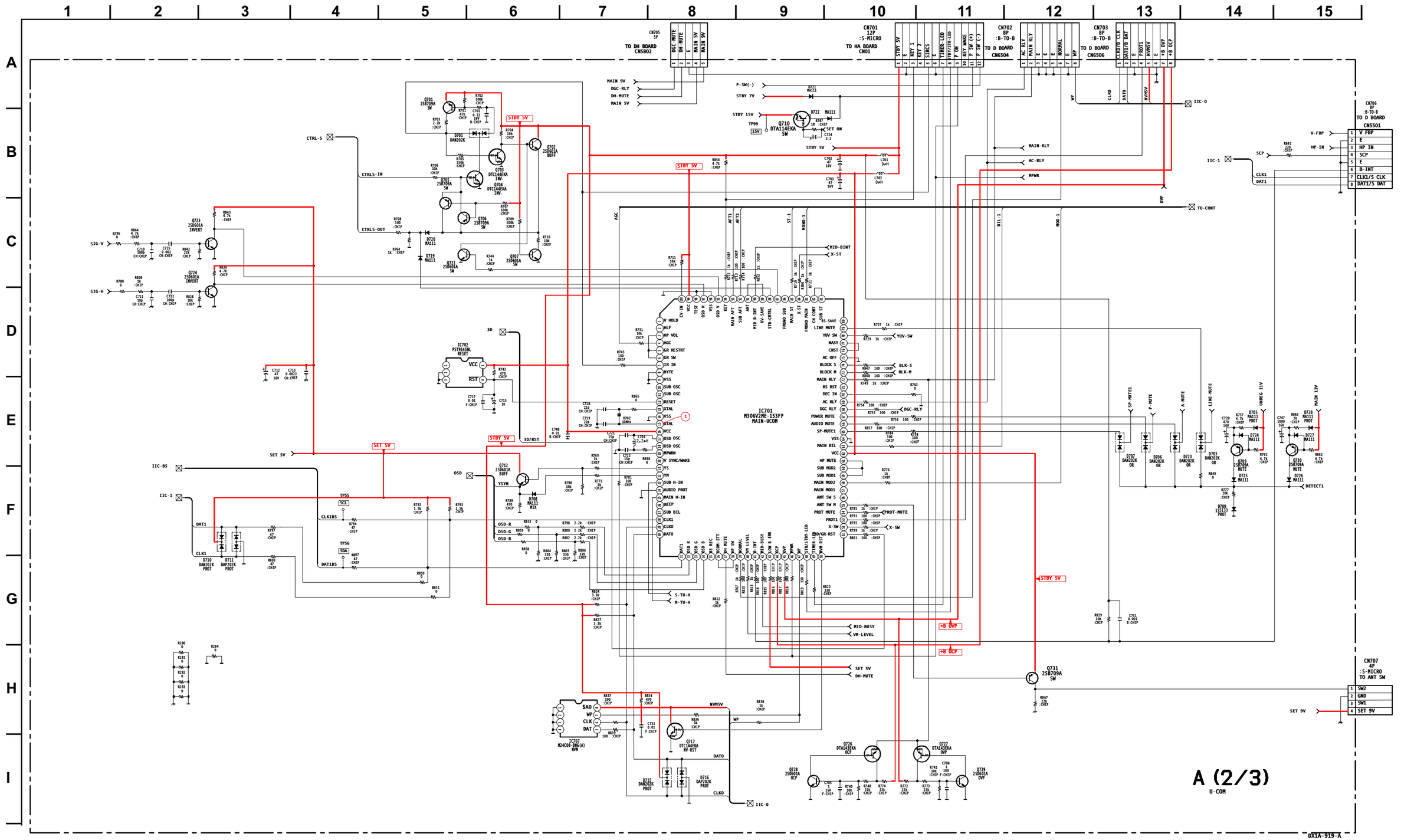


A BOARD TRANSISTOR VOLTAGE LIST

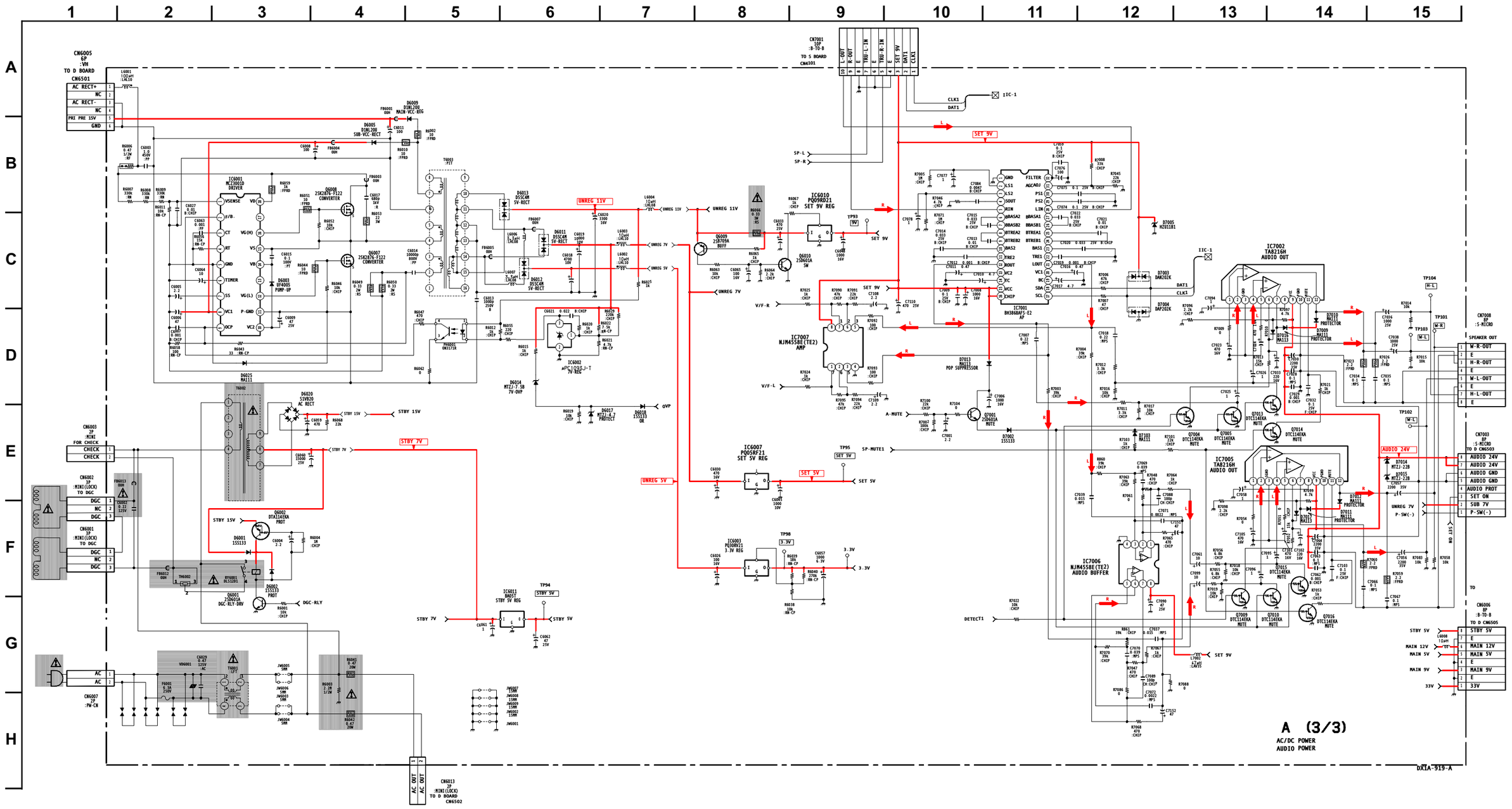
	B	C	E		B	C	E		B	C	E
Q001	0.4	0.0	GND	Q702	0.1	5.0	0.0	Q731	0.0	0.0	5.0
Q002	0.4	0.0	GND	Q703	4.6	5.0	GND	Q6001	0.0	23.9	GND
Q004	4.6	1.1	5.0	Q704	0.0	4.4	GND	Q6002	26.3	24.0	26.3
Q005	4.3	9.0	3.6	Q705	5.0	0.0	0.0	Q6009	10.3	0.0	10.4
QQ12	0.1	7.5	GND	Q706	5.0	0.0	0.0	Q6010	0.0	2.4	GND
Q015	6.2	9.0	5.5	Q707	0.5	0.0	GND	Q7001	0.3	8.8	0.0
Q027	4.5	0.9	5.0	Q709	10.4	0.7	10.2	Q7004	0.3	8.0	GND
Q203	2.3	GND	3.2	Q710	25.8	0.0	26.4	Q7005	0.0	0.0	GND
Q204	2.5	GND	3.2	Q712	0.0	5.0	0.0	Q7009	0.3	8.0	GND
Q207	2.3	GND	3.2	Q717	0.0	5.0	GND	Q7010	0.0	0.0	GND
Q208	2.3	GND	3.2	Q721	0.0	0.0	GND	Q7013	0.0	0.0	GND
Q209	0.0	2.2	GND	Q723	0.2	4.6	GND	Q7014	0.0	4.1	GND
Q211	2.8	11.5	2.3	Q724	0.5	4.6	GND	Q7015	0.0	0.0	GND
Q212	5.6	9.0	5.0	Q726	4.6	0.1	4.6	Q7016	0.0	4.2	GND
Q214	0.0	0.0	GND	Q727	4.6	0.1	4.6		D	G	S
Q216	4.5	GND	3.9	Q728	0.1	4.6	GND	Q6007	150.4	4.7	0.0
Q217	2.2	8.7	3.9	Q729	0.1	4.6	GND	Q6008	303.0	154.6	150.0
Q701	4.7	4.7	5.0	Q730	10.4	0.7	10.2				

All voltages are in V.

A BOARD SCHEMATIC DIAGRAM (2 OF 3)

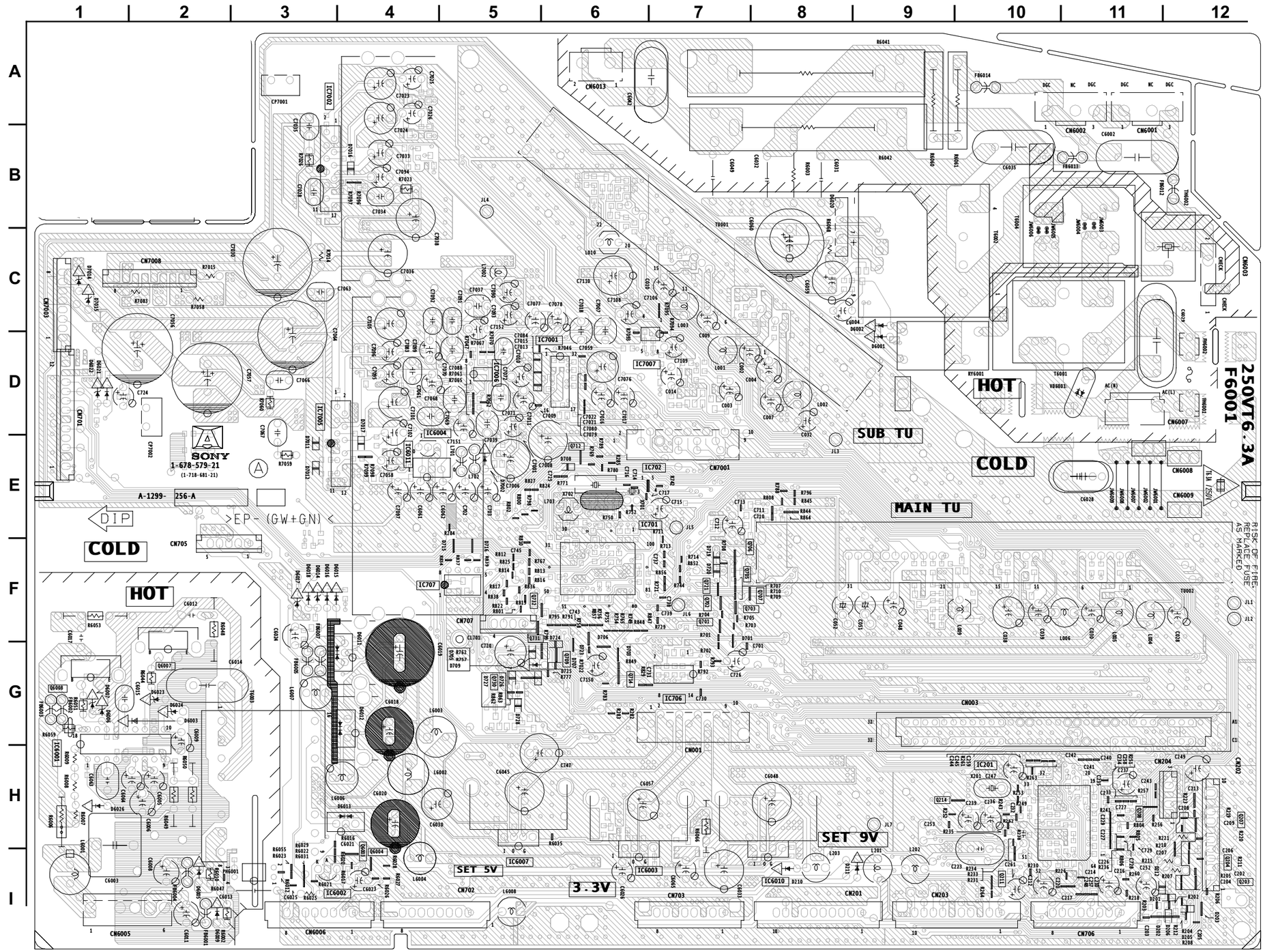

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
CN705 5P
TO DH BOARD CN5802
DGC-MUTE
DH-MUTE
E
MAIN 5V
MAIN 5V
CN701 12P :S-MICRO
TO HA BOARD CN01
STBY 5V
KEY 1
KEY 2
STRCS
TIMER-LED
PWR-LED
KEY WAKE
P SW (+)
P SW (-)
CN702 8P :B-TO-B
TO D BOARD CN6504
AC RLY
MAIN RLY
NORMAL
WP
CN703 8P :B-TO-B
TO D BOARD CN6506
CLKO/B CLK
DATO/B DAT
PROT1
NVMSV
+B OVP
+B OCP
CN706 8P :B-TO-B
TO D BOARD CN5501
V FBP
E
HP IN
SCP
E
B-INT
CLK1/S CLK
DAT1/S DAT
MAIN 5V
DGC-RLY
DH-MUTE
MAIN 5V
P-SW(-)
STBY 7V
STBY 15V
TP99
15V
Q710 DTA114EKA SW
D722 MA111
R787 1M :CHIP
C724 2.2
SET ON
STBY 5V
C702 47 16V
C703 47 16V
L701 0uH
L702 0uH
STBY 5V
R854 4.7k :CHIP
MAIN-RLY
AC-RLY
MPWR
IIC-0
OVP
TU-CONT
CTRL-S
CTRLS-IN
CTRLS-OUT
Q701 2SB709A SW
R702 100k :CHIP
R703 47k :CHIP
C700 0.33 50V B:CHIP
D701 DAN202K
R704 10k :CHIP
Q702 2SD601A BUFF
R705 150k :CHIP
Q703 DTC144EKA 1HV
R206 10k :CHIP
Q705 2SB709A SW
Q704 DTC144EKA 1HV
R707 10k :CHIP
Q706 2SB709A SW
R708 100 :CHIP
R709 100k :CHIP
R710 10k :CHIP
R720 MA111
R764 1k :CHIP
D719 MA111
Q707 2SD601A SW
R744 1k :CHIP
Q721 2SD601A SW
SIG-V
SIG-H
R796 0
R864 4.7k :CHIP
C710 1000 CH:CHIP
C715 0.001 CH:CHIP
R842 220 :CHIP
Q723 2SD601A INVERT
R843 4.7k :CHIP
R788 0
R808 1k :CHIP
C711 100 CH:CHIP
C712 1000 CH:CHIP
R828 10k :CHIP
Q724 2SD601A INVERT
R830 4.7k :CHIP
C712 47 16V
C713 0.0022 CH:CHIP
3D
IC702 PST9345NL RESET
VCC
RST
R742 470 :CHIP
C717 0.01 F:CHIP
C715 10
3D/RST
C718 220 CH:CHIP
C719 220 CH:CHIP
X702 10MHz
C721 150 CH:CHIP
C720 2.2uH
C722 150 CH:CHIP
R866 0
R865 0
C708 0.01 B:CHIP
SET 5V
IIC-BS
IIC-1
DAT1
CLK1
DAT1
CLK1BS
DAT1BS
TP55
SCL
TP56
SDA
D710 DAN202K PROT
D711 DAP202K PROT
R757 47 :CHIP
R807 47 :CHIP
R855 47 :CHIP
R792 1.5k :CHIP
R793 1.5k :CHIP
R794 47 :CHIP
R850 0
R851 0
OSD
Q712 2SD601A BUFF
R269 1k :CHIP
R781 100 :CHIP
R771 1k :CHIP
Q708 MA111 BIA
R789 470 :CHIP
R780 100 :CHIP
OSD-R
OSD-G
OSD-B
R853 0
R859 0
R858 0
R790 2.2k :CHIP
R802 2.2k :CHIP
R803 2.2k :CHIP
R804 330 :CHIP
R805 330 :CHIP
R806 330 :CHIP
R824 3.3k :CHIP
R827 3.3k :CHIP
S-TU-H
M-TU-H
IC701 M306V2ME-153FP MAIN-UCOM
V HOLD
HLF
HP VOL
AGC
GR RESTRT
GR SW
IR IN
BYTE
VSS
SUB OSC
SUB OSC
RESET
XTAL
VSS
XTAL
VCC
OSD OSC
OSD OSC
MPWRN
V SYNC/WAKE
YS
YM
SUB H-IN
AUDIO PROT
MAIN H-IN
BEEP
SUB BIL
CLK1
CLKO
DATO
R731 10k :CHIP
R743 100 :CHIP
R865 0
R866 0
CV-IN
VCC
TEST
OSD H
OSD V
VSS
OSD A
KEY
MAIN AFT
SUB AFT
ANT
MID B-INT
UV-SAVE
STB-CNTRL
FRONT SUB
MAIN ST
X-ST
FRONT MAIN
CH CONT
SUB ST
AFT1
AFT2
ST-1
MONO-1
RID-BINT
X-ST
R731 10k :CHIP
R715 1k :CHIP
R716 100 :CHIP
R717 1k :CHIP
R718 1k :CHIP
R719 1k :CHIP
R720 1k :CHIP
R721 1k :CHIP
R722 3k :CHIP
R723 1k :CHIP
R724 1k :CHIP
R725 1k :CHIP
R726 1k :CHIP
R727 1k :CHIP
R728 1k :CHIP
R729 1k :CHIP
R730 1k :CHIP
R731 1k :CHIP
R732 1k :CHIP
R733 1k :CHIP
R734 1k :CHIP
R735 1k :CHIP

A BOARD SCHEMATIC DIAGRAM (3 OF 3)



A [TUNER, CRT DRIVE, U-COM, AC/DC POWER, AUDIO POWER]

COMPONENT SIDE

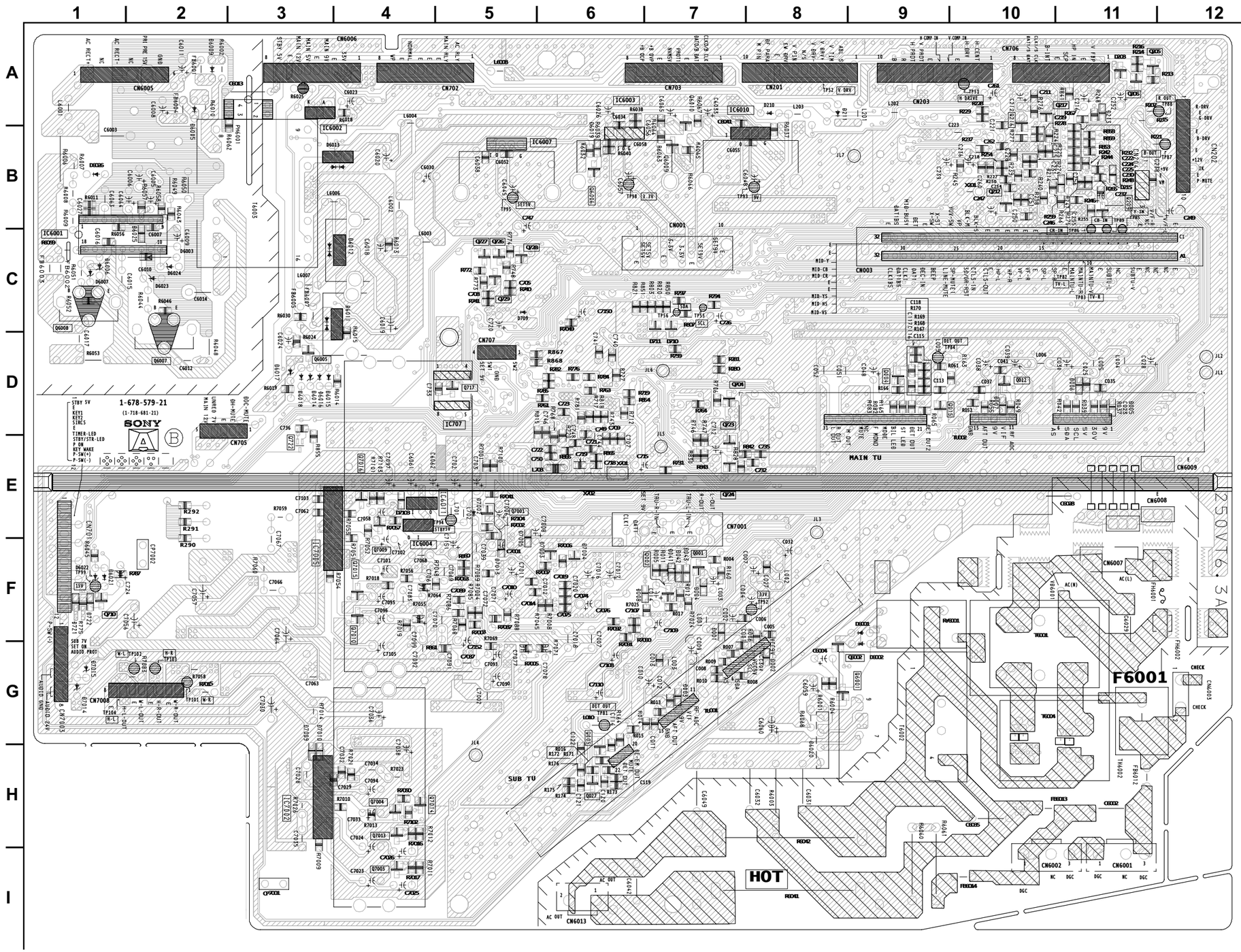


A BOARD LOCATOR LIST (COMPONENT SIDE)

DIODE		IC		CRYSTAL	
D203	I-12	IC201	H-10	X201	H-10
D211	I-8	IC701	E-6	X702	E-6
D212	H-8	IC702	E-6		
D701	D-4	IC707	F-4		
D703	F-6	IC6001	G-1		
D705	F-4	IC6002	I-4		
D706	F-6	IC6003	I-7		
D707	G-6	IC6007	H-5		
D708	E-6	IC6010	I-8		
D709	G-5	IC6011	E-4		
D715	E-4	IC7001	D-6		
D716	E-5	IC7002	A-3		
D719	F-7	IC7005	D-3		
D720	F-7	IC7006	D-5		
D723	F-6	IC7007	D-6		
D724	F-5	TRANSISTOR			
D725	G-6	Q203	I-12		
D726	G-5	Q204	I-12		
D727	G-5	Q207	H-12		
D728	G-5	Q208	H-11		
D6001	C-9	Q211	I-10		
D6002	C-8	Q214	H-9		
D6003	G-2	Q701	F-7		
D6005	I-2	Q702	F-7		
D6009	I-2	Q703	F-7		
D6011	F-4	Q705	F-7		
D6012	G-4	Q706	F-7		
D6013	H-4	Q707	F-7		
D6014	F-3	Q709	G-6		
D6017	F-3	Q712	D-6		
D6020	B-8	Q721	F-7		
D7002	E-5	Q730	G-5		
D7011	D-3	Q731	F-5		
D7012	E-3	Q6007	G-2		
D7014	C-1	Q6008	G-1		
D7015	C-1				
D7016	B-4				
D7017	D-4				

A [TUNER, CRT DRIVE, U-COM, AC/DC POWER, AUDIO POWER]

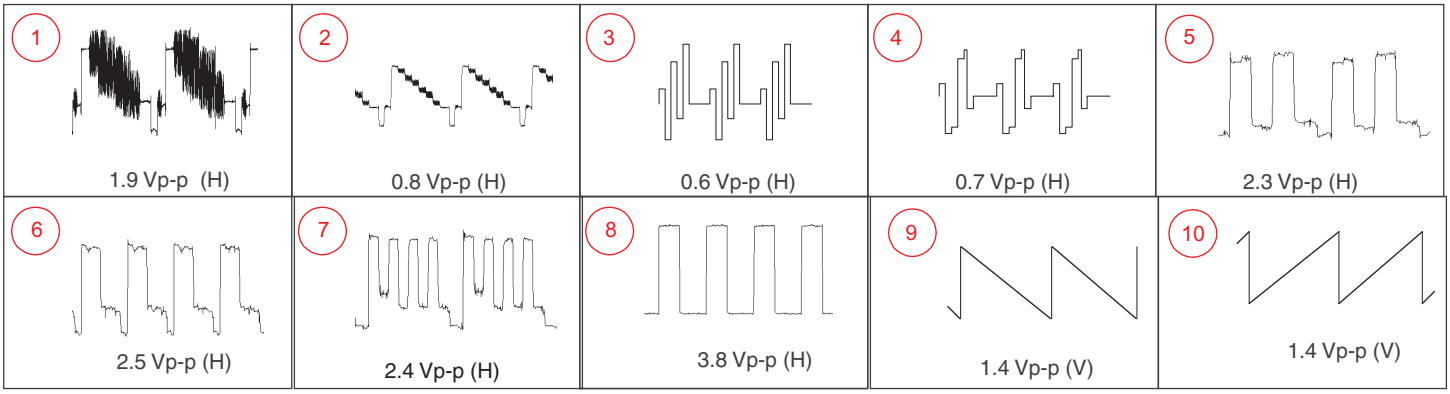
CONDUCTOR SIDE



A BOARD LOCATOR LIST (CONDUCTOR SIDE)

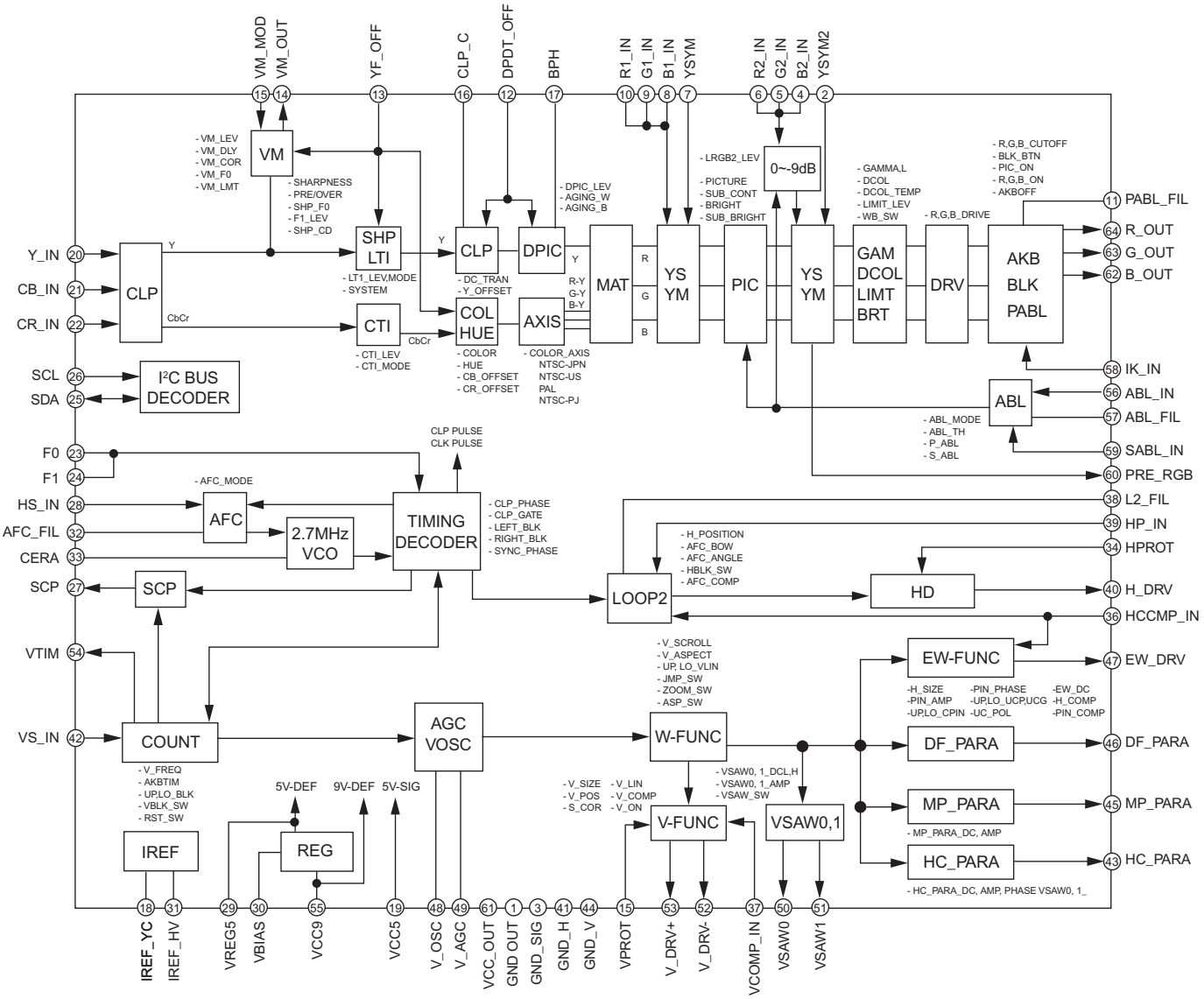
DIODE		Q209	B-11
D004	F-7	Q212	B-10
D008	F-7	Q216	A-10
D214	B-10	Q217	A-11
D215	B-10	Q704	D-8
D710	D-7	Q710	F-1
D711	D-7	Q717	D-5
D721	F-1	Q723	D-7
D722	F-1	Q724	E-7
D6018	D-3	Q726	C-5
D6025	D-3	Q727	C-5
D7003	E-5	Q728	C-6
D7004	E-5	Q729	C-5
D7005	E-5	Q6001	G-9
D7009	H-4	Q6002	G-10
D7010	H-4	Q6009	B-7
D7013	F-5	Q6010	A-7
D7103	E-4	Q7001	E-5
TRANSISTOR		Q7004	H-4
Q001	F-7	Q7005	I-4
Q002	F-7	Q7009	F-4
Q004	D-9	Q7010	F-4
Q005	H-6	Q7013	H-4
Q012	D-10	Q7014	H-4
Q015	D-10	Q7015	F-4
Q027	H-6	Q7016	E-4

A BOARD WAVEFORMS



A BOARD IC BLOCK DIAGRAM

IC201 CXA2150AQ

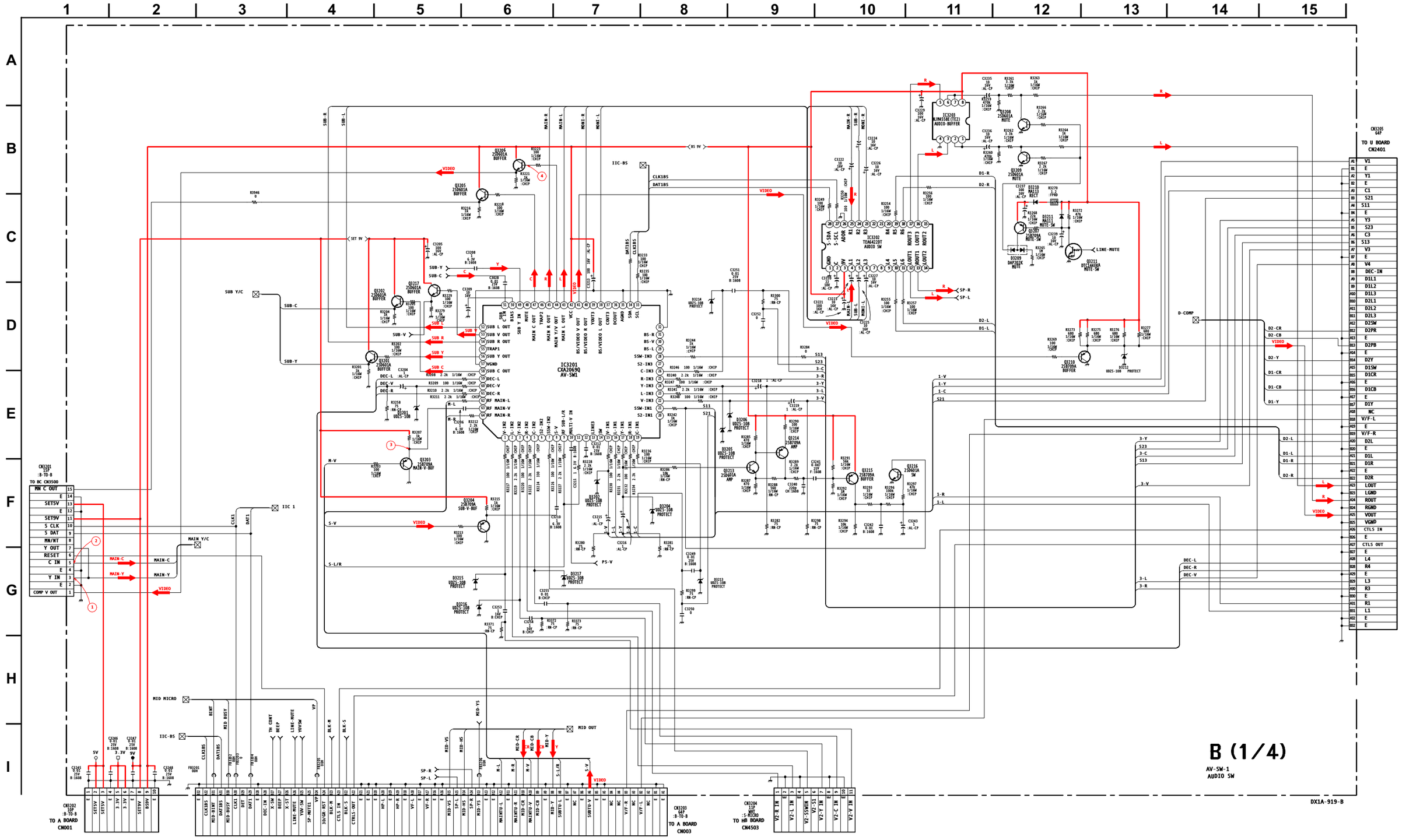


A BOARD IC VOLTAGE LIST

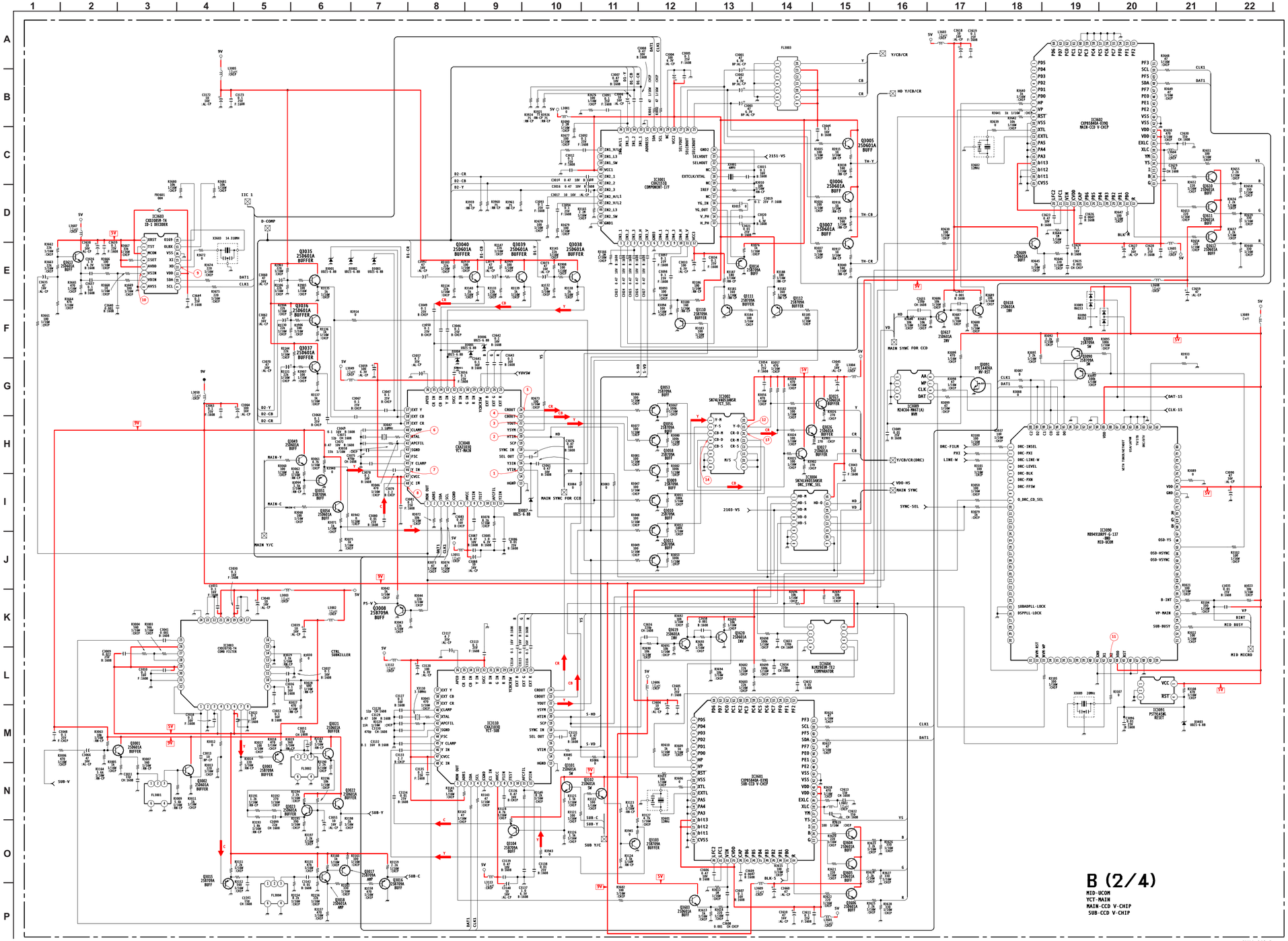
IC201		47	3.9	29	4.9	77	0.0	6	0.0	9	4.4	9	23.7
PIN	VOLT	48	4.4	30	4.9	78	0.0	7	4.6	10	4.4	10	0.0
1	GND	49	5.4	31	4.4	79	0.0	8	17.3	11	4.4	11	4.2
2	0.0	50	3.5	32	0.0	80	N/C	9	0.0	12	4.4	12	10.5
3	GND	51	3.8	33	0.0	81	0.0	10	10.4	13	0.8	IC7006	
4	3.1	52	3.4	34	0.0	82	0.0	11	GND	14	1.9	PIN	VOLT
5	3.1	53	3.5	35	N/C	83	0.0	12	4.7	15	9.0	1	4.5
6	3.1	54	1.0	36	0.0	84	0.0	13	N/C	16	9.0	2	4.5
7	0.0	55	9.0	37	4.6	85	0.0	14	160.6	17	4.5	3	4.5
8	3.6	56	1.0	38	0.0	86	N/C	15	150.4	18	4.6	4	GND
9	3.6	57	4.3	39	0.0	87	0.0	16	154.6	19	1.9	5	4.5
10	3.6	58	3.9	40	0.0	88	0.0	17	N/C	20	0.8	6	4.5
11	0.0	59	1.7	41	2.3	89	0.0	18	303.1	21	4.4	7	4.5
12	0.5	60	1.7	42	0.0	90	0.0	IC6002		22	4.4	8	9.0
13	0.5	61	9.0	43	4.6	91	0.0	PIN	VOLT	23	4.4	IC7007	
14	2.3	62	2.3	44	2.8	92	0.0	1	7.3	24	4.4	PIN	VOLT
15	3.7	63	2.5	45	0.1	93	0.0	2	GND	25	4.4	1	4.5
16	2.7	64	2.3	46	0.0	94	4.6	3	2.5	26	4.4	2	4.5
17	2.6	IC701		47	4.6	95	4.6	IC6003		27	4.4	3	4.1
18	1.1	PIN	VOLT	48	5.0	96	GND	PIN	VOLT	28	4.4	4	GND
19	4.9	1	N/C	49	5.0	97	4.6	I	5.7	29	4.4	5	4.5
20	3.6	2	N/C	50	0.0	98	GND	G	GND	30	4.5	6	4.5
21	3.4	3	0.0	51	5.0	99	4.9	O	3.3	31	2.8	7	4.5
22	3.4	4	0.0	52	0.0	100	4.6	IC6007		32	4.4	8	9.0
23	GND	5	0.0	53	3.0	IC702		PIN	VOLT	IC7002			
24	N/C	6	0.0	54	0.0	PIN	VOLT	I	6.3	PIN	VOLT		
25	4.6	7	4.7	55	0.0	1	N/C	G	GND	1	1.6		
26	4.6	8	GND	56	N/C	2	GND	O	5.0	2	0.0		
27	0.7	9	GND	57	N/C	3	GND	IC6010		3	GND		
28	0.0	10	N/C	58	0.0	4	4.9	PIN	VOLT	4	0.0		
29	5.0	11	N/C	59	0.0	5	4.9	I	10.9	5	1.6		
30	5.6	12	4.9	60	0.0	IC707		G	GND	6	8.0		
31	1.3	13	2.3	61	0.0	PIN	VOLT	O	9.0	7	11.0		
32	3.0	14	GND	62	4.9	1	GND	IC6011		8	5.0		
33	1.6	15	2.4	63	4.9	2	GND	PIN	VOLT	9	23.7		
34	0.0	16	4.9	64	GND	3	GND	I	7.0	10	0.0		
35	0.0	17	0.0	65	0.0	4	GND	G	GND	11	4.1		
36	0.2	18	0.0	66	N/C	5	4.6	O	5.0	12	10.5		
37	0.0	19	0.0	67	0.0	6	4.6	IC7001		IC7005			
38	3.2	20	N/C	68	0.0	7	5.0	PIN	VOLT	PIN	VOLT		
39	1.1	21	0.0	69	7.3	8	5.0	1	GND	1	1.6		
40	2.8	22	0.0	70	0.0	IC6001		2	0.0	2	0.0		
41	GND	23	0.0	71	N/C	PIN	VOLT	3	4.5	3	GND		
42	0.0	24	GND	72	6.3	1	-159.4	4	4.4	4	0.0		
43	3.8	25	0.0	73	0.0	2	1.8	5	4.4	5	1.6		
44	GND	26	N/C	74	0.0	3	-150.0	6	4.4	6	8.0		
45	2.8	27	N/C	75	GND	4	2.5	7	4.4	7	11.0		
46	3.6	28	4.4	76	0.0	5	GND	8	4.4	8	5.0		

All voltages are in V.

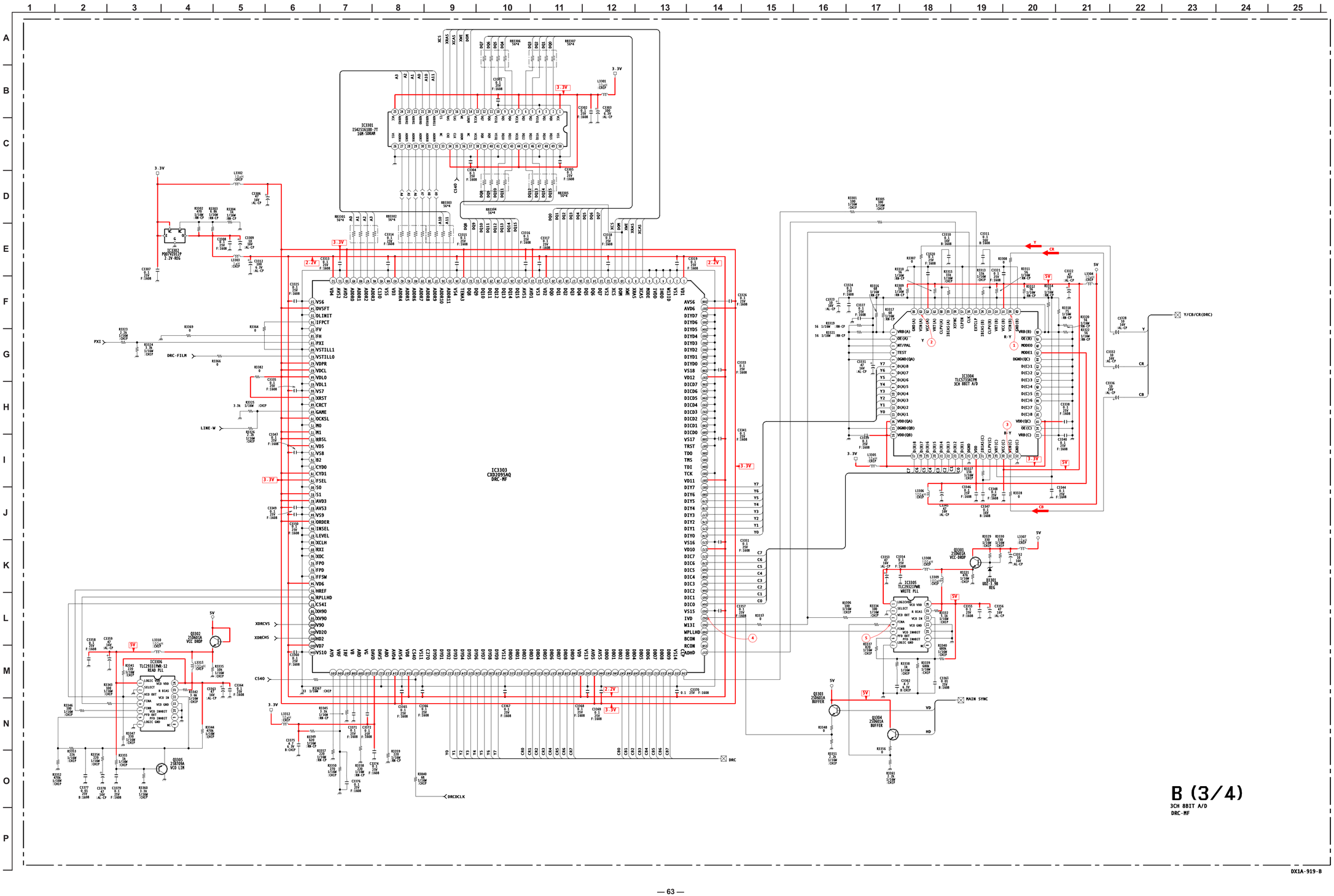
B BOARD SCHEMATIC DIAGRAM (1 OF 4)



B BOARD SCHEMATIC DIAGRAM (2 OF 4)



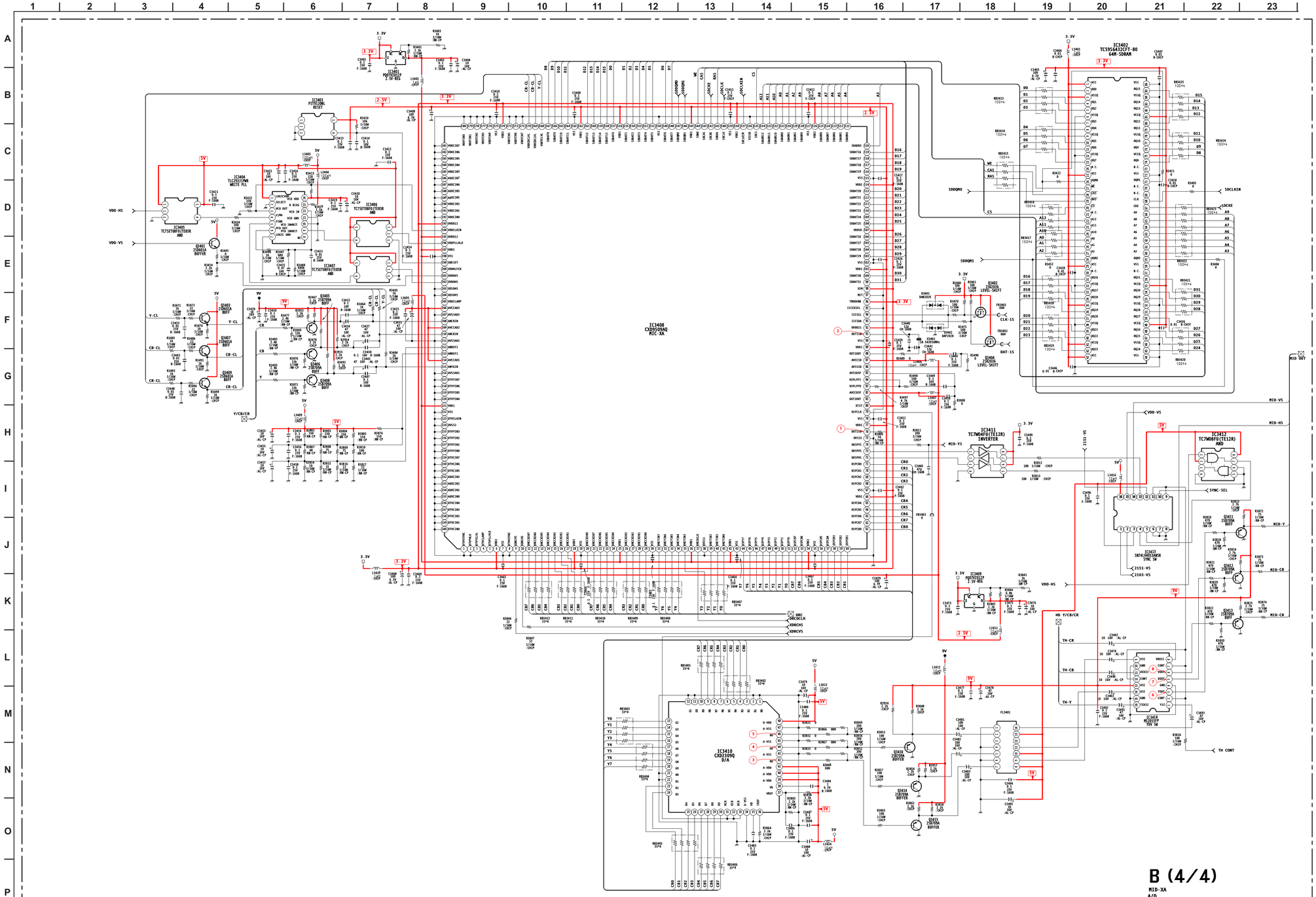
B BOARD SCHEMATIC DIAGRAM (3 OF 4)



B (3/4)
3CH 8BIT A/D
DRC-MF

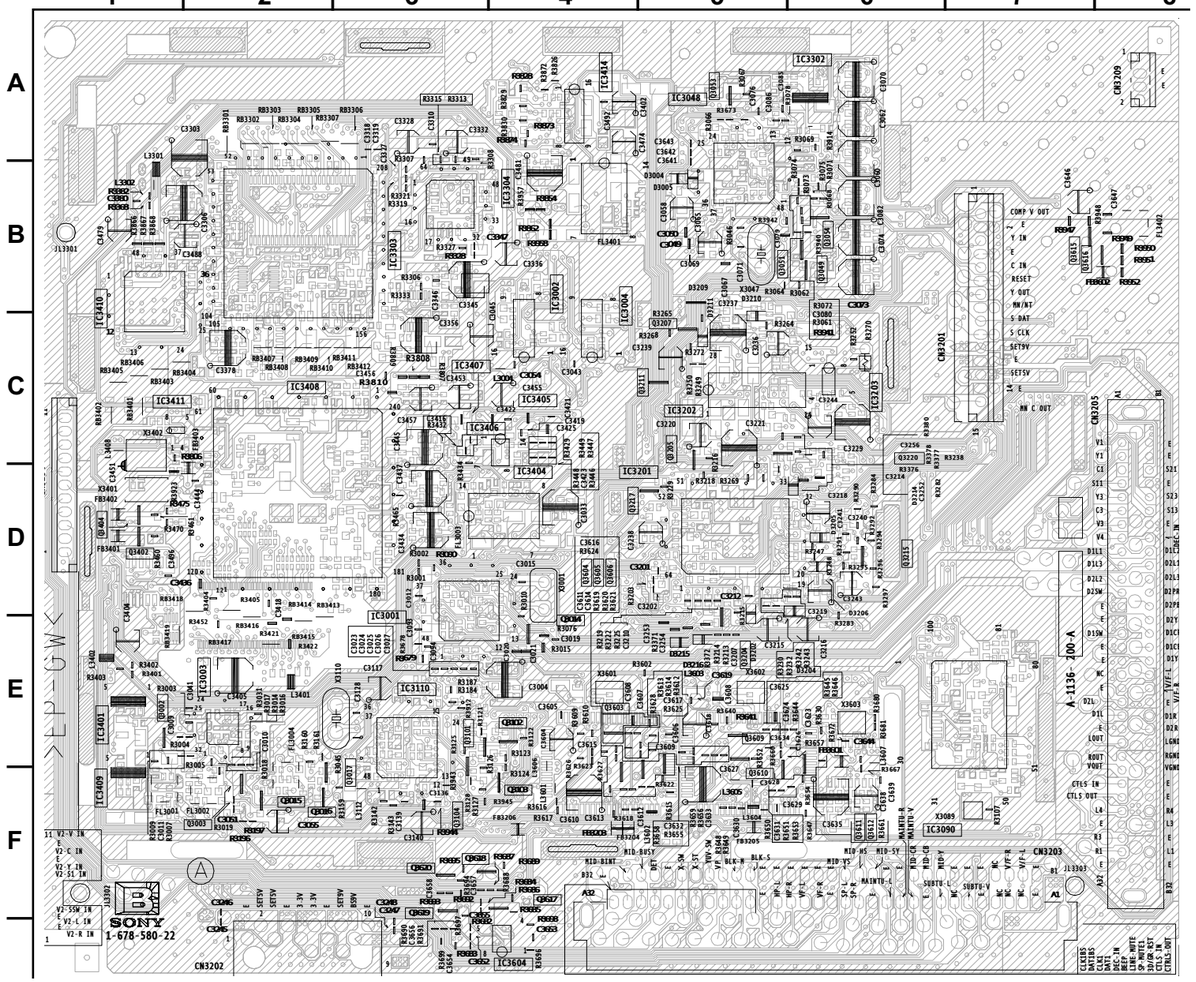
DXIA-919-B

B BOARD SCHEMATIC DIAGRAM (4 OF 4)

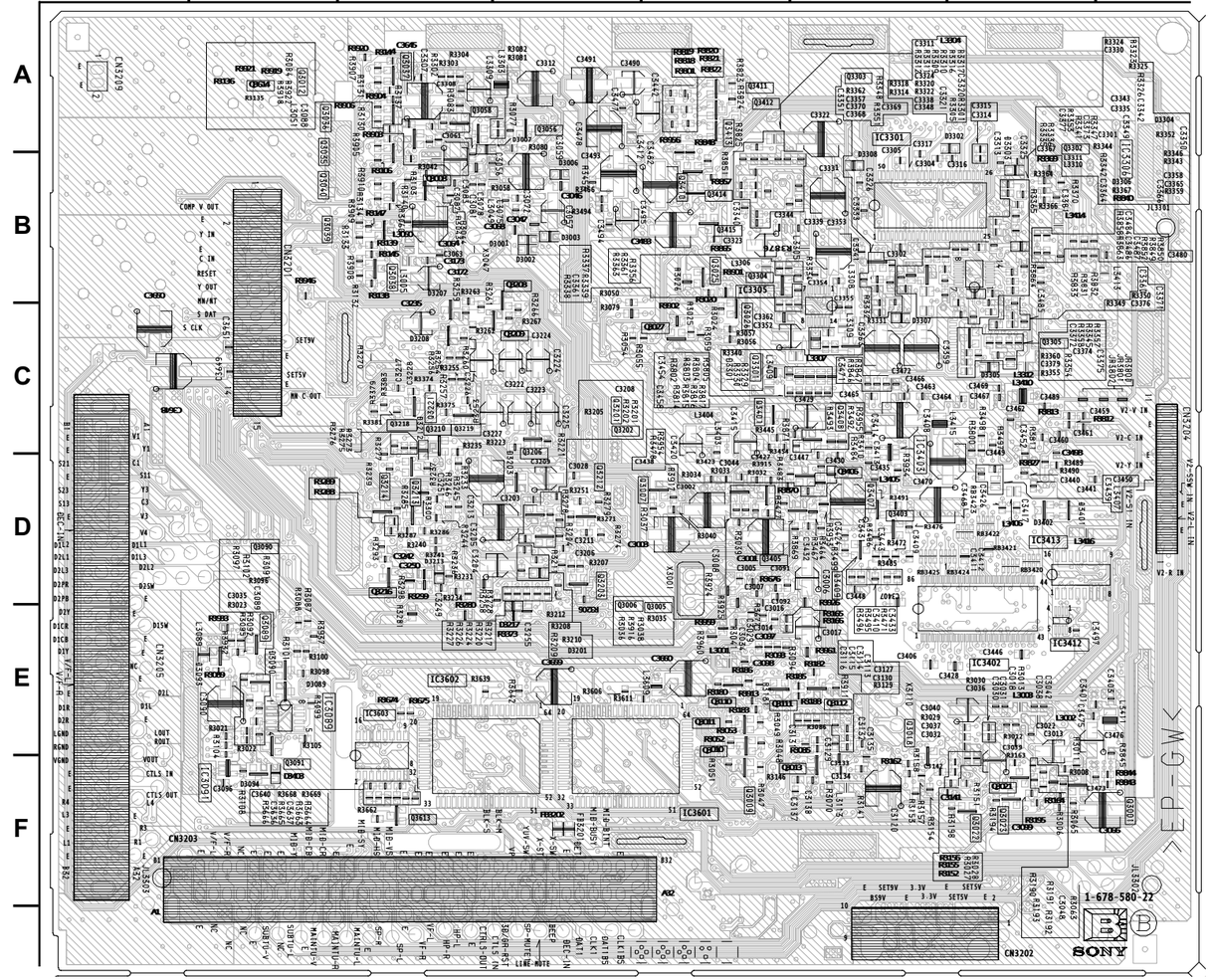


B [AV-SW1, AUDIO SW, MID-UCOM, YCT-MAIN, MAIN-CCD V-CHIP, SUB-CCD V-CHIP, 3CH 8 BIT A/D, DRC-MF, MID-XA, A/D]

COMPONENT SIDE



CONDUCTOR SIDE



B BOARD LOCATOR LIST (COMPONENT SIDE)

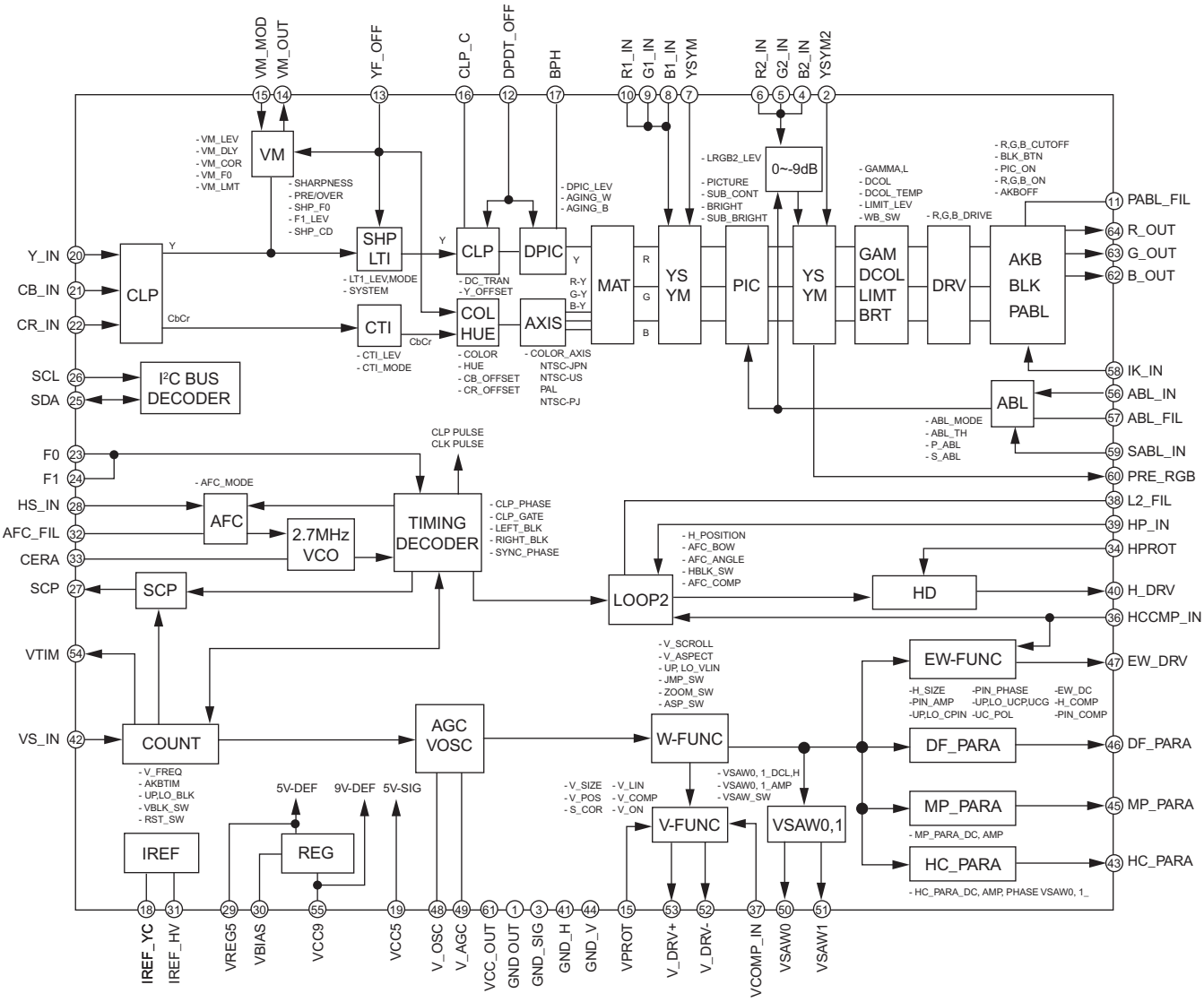
DIODE		IC		IC3304	B-4	TRANSISTOR		Q3102	E-4	Q3604	D-4	CRYSTAL	
D3004	B-5	IC3001	E-3	IC3401	E-1	Q3002	E-1	Q3103	F-4	Q3605	D-4	X3001	D-4
D3005	B-5	IC3002	B-4	IC3404	D-4	Q3003	F-2	Q3104	F-3	Q3606	D-4	X3047	B-5
D3202	E-5	IC3003	E-2	IC3405	C-4	Q3014	E-4	Q3204	E-5	Q3609	E-5	X3089	F-7
D3204	E-6	IC3004	C-5	IC3406	C-4	Q3015	F-2	Q3205	C-5	Q3610	F-5	X3110	E-2
D3205	D-6	IC3048	A-5	IC3407	C-4	Q3016	F-2	Q3207	C-5	Q3611	F-6	X3401	D-1
D3206	E-6	IC3090	F-7	IC3408	C-2	Q3017	F-3	Q3211	C-5	Q3612	F-6	X3601	E-4
D3209	B-5	IC3110	E-3	IC3409	F-1	Q3049	B-6	Q3215	D-6	Q3617	F-4	X3602	E-6
D3210	B-5	IC3201	D-5	IC3410	C-1	Q3051	B-6	Q3217	D-5	Q3618	F-4	X3603	E-6
D3211	B-5	IC3202	C-5	IC3411	C-2	Q3053	A-5	Q3402	D-1	Q3619	G-3		
D3214	D-6	IC3203	C-6	IC3414	A-4	Q3054	B-6	Q3404	D-1	Q3620	F-3		
D3215	E-5	IC3302	A-6	IC3604	G-4	Q3101	E-4	Q3603	E-4				
D3216	E-5	IC3303	B-3										

B BOARD LOCATOR LIST (CONDUCTOR SIDE)

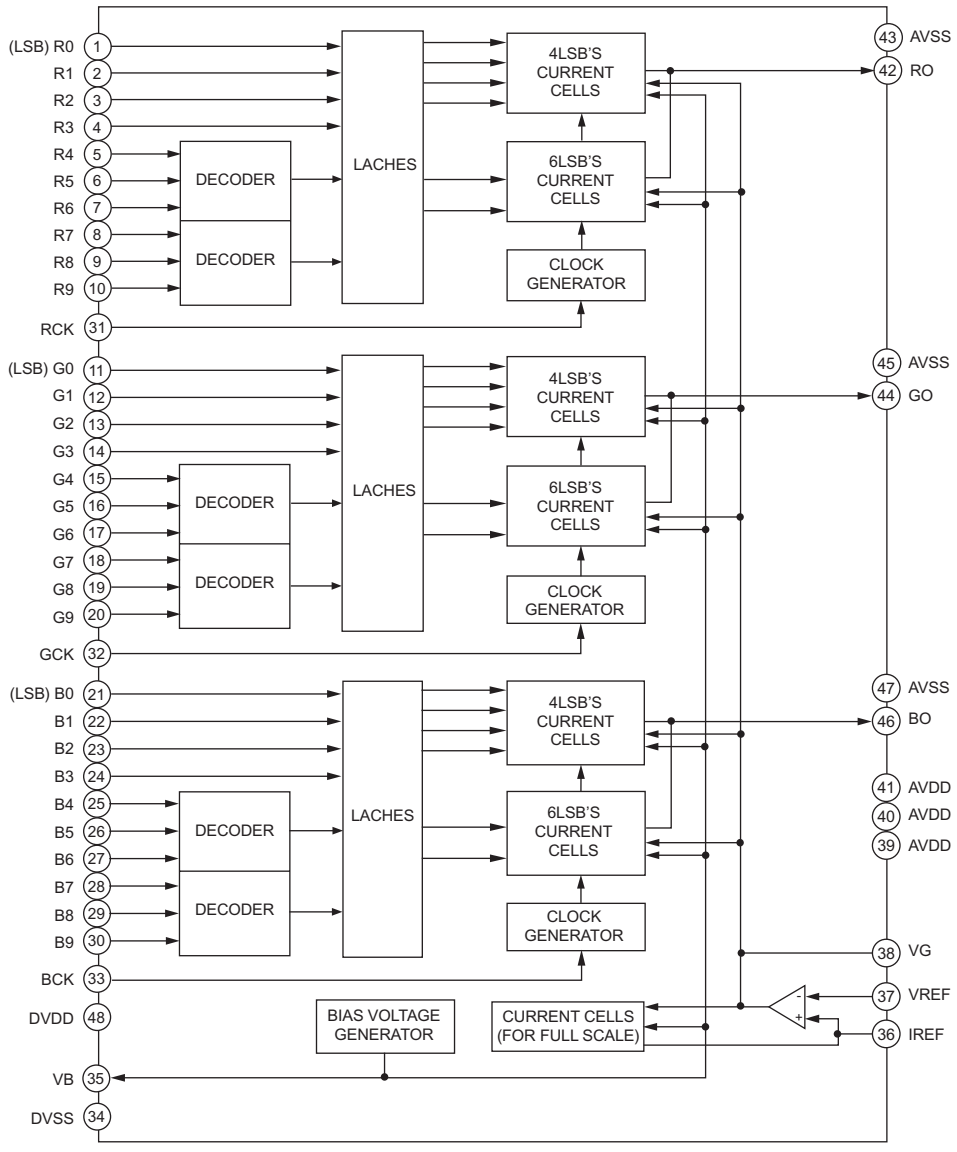
DIODE		D3301	C-5	IC3412	E-8	Q3010	E-5	Q3038	B-3	Q3202	C-4	Q3304	B-5	Q3413	A-5
D3001	B-4	D3401	D-7	IC3413	D-7	Q3011	E-5	Q3039	B-2	Q3203	D-4	Q3305	C-7	Q3414	B-5
D3002	B-4	D3402	D-7	IC3601	F-5	Q3018	E-6	Q3040	B-2	Q3206	C-4	Q3401	C-5	Q3415	B-5
D3003	B-4	D3403	F-2	IC3602	E-3	Q3021	F-7	Q3056	A-4	Q3208	B-4	Q3403	D-6	Q3613	F-3
D3006	B-4	IC		IC3603	E-3	Q3022	F-7	Q3058	A-3	Q3209	C-4	Q3405	D-5		
D3007	B-4	IC3089	E-2	TRANSISTOR		Q3023	F-7	Q3089	E-2	Q3210	C-3	Q3406	D-6		
D3089	E-2	IC3091	F-2	Q3001	F-8	Q3025	B-5	Q3090	D-2	Q3213	D-3	Q3407	D-6		
D3090	E-2	IC3301	B-6	Q3005	E-5	Q3026	B-5	Q3091	F-2	Q3214	D-3	Q3408	C-6		
D3201	E-4	IC3305	B-5	Q3006	E-5	Q3027	B-5	Q3110	E-5	Q3216	D-3	Q3409	D-6		
D3212	C-3	IC3306	B-8	Q3007	D-5	Q3035	B-2	Q3111	E-5	Q3301	C-5	Q3410	B-5		
D3213	D-3	IC3402	E-7	Q3008	B-3	Q3036	A-2	Q3112	E-6	Q3302	A-7	Q3411	A-5		
D3217	E-4	IC3403	C-6	Q3009	F-5	Q3037	A-3	Q3201	C-4	Q3303	A-6	Q3412	A-5		

IC DIAGRAMS

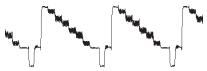
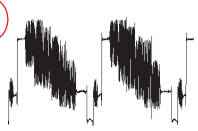
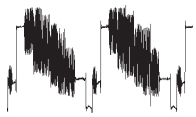
B BOARD: IC3001 CXA2151Q



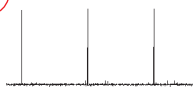
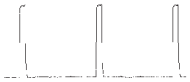
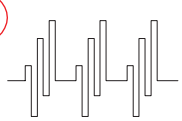
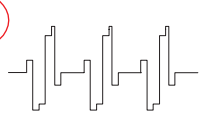
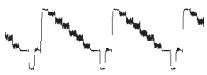
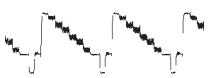
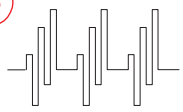
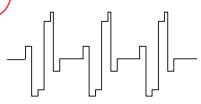
B BOARD: IC3410 CXD2309Q



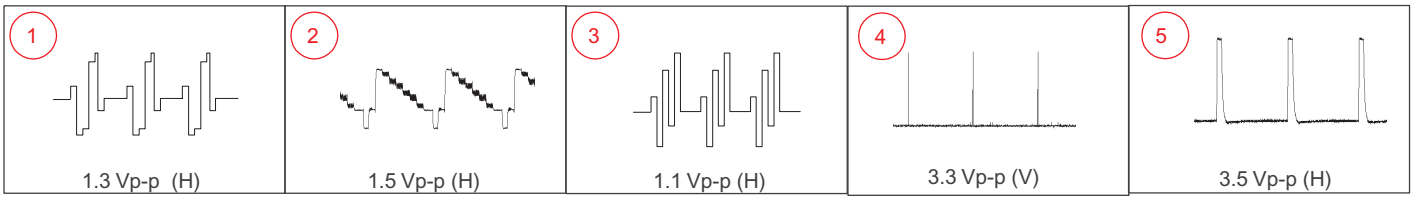
B BOARD WAVEFORMS (SCHEMATIC 1 OF 4)

1  1.9 Vp-p (H)	2 1.5 Vp-p (H)
3  2.7 Vp-p (H)	4  2.8 Vp-p (H)

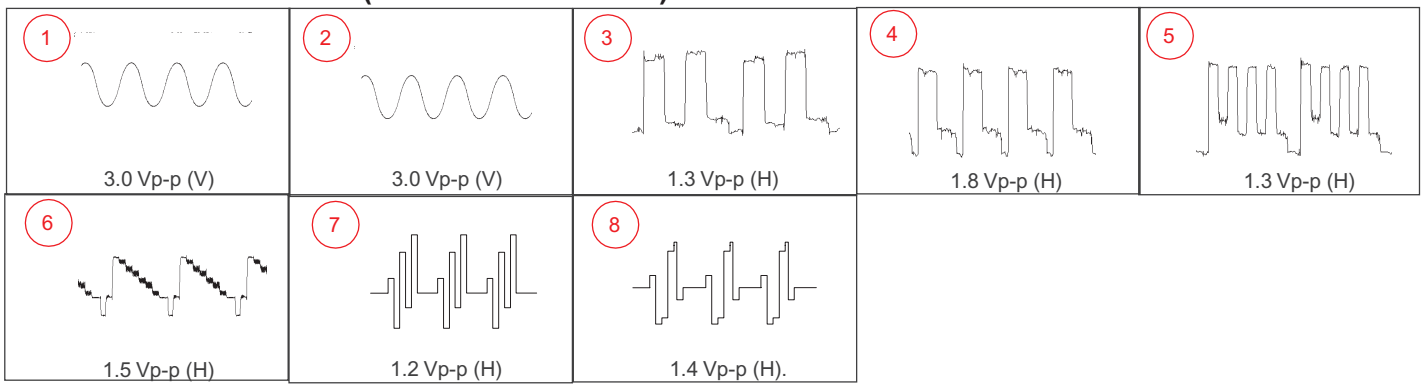
B BOARD WAVEFORMS (SCHEMATIC 2 OF 4)

1  3.5 Vp-p (V)	2  3.7 Vp-p (H)	3 1.5 Vp-p (H)
4  1.2 Vp-p (H)	5  1.3 Vp-p (H)	6 0.2 Vp-p (3.58MHz)
7 1.2 Vp-p (H)	8 0.8 Vp-p (H)	9 5.5 Vp-p (14.3MHz)
10  1.0 Vp-p (H)	11 2.4 Vp-p (20MHz)	12  1.3 Vp-p (H)
13  1.3 Vp-p (H)	14  1.3 Vp-p (H).	

B BOARD WAVEFORMS (SCHEMATIC 3 OF 4)



B BOARD WAVEFORMS (SCHEMATIC 4 OF 4)



B BOARD TRANSISTOR VOLTAGE LIST

	B	C	E		B	C	E		B	C	E
Q3001	4.1	9.0	3.4	Q3056	2.1	GND	2.8	Q3304	0.5	4.9	0.2
Q3002	5.1	9.0	5.7	Q3058	1.9	GND	2.5	Q3305	3.2	GND	2.3
Q3003	1.8	GND	5.4	Q3089	4.1	4.7	4.7	Q3401	0.0	4.9	0.0
Q3005	2.2	4.9	1.6	Q3090	4.1	4.7	4.7	Q3402	4.6	3.3	3.1
Q3006	2.9	4.9	2.2	Q3091	0.0	8.9	GND	Q3403	1.0	4.9	0.5
Q3007	2.9	4.8	2.3	Q3101	3.7	9.0	3.1	Q3404	4.6	3.3	3.1
Q3008	1.0	GND	1.6	Q3102	2.8	9.0	2.2	Q3405	2.3	GND	3.0
Q3009	2.0	GND	0.0	Q3103	1.1	GND	1.7	Q3406	2.3	GND	3.0
Q3010	2.0	GND	0.0	Q3104	1.5	GND	2.1	Q3407	1.7	4.9	1.2
Q3011	1.2	GND	0.0	Q3110	0.8	GND	1.5	Q3408	2.3	GND	3.0
Q3014	2.7	GND	3.3	Q3111	1.2	GND	1.8	Q3409	1.7	4.9	1.2
Q3015	1.0	GND	1.6	Q3112	1.2	GND	1.8	Q3410	0.5	GND	1.2
Q3016	1.1	GND	1.7	Q3201	4.6	2.9	2.5	Q3411	1.5	GND	2.2
Q3017	4.1	4.8	0.7	Q3202	2.7	9.0	2.3	Q3412	1.5	GND	2.2
Q3018	1.5	4.1	0.9	Q3203	3.1	GND	3.7	Q3413	1.5	GND	2.2
Q3021	2.9	9.0	0.7	Q3204	1.8	GND	2.2	Q3414	0.8	GND	1.5
Q3022	7.9	9.0	0.0	Q3205	4.4	9.0	3.8	Q3415	1.4	GND	2.0
Q3023	0.7	7.9	0.3	Q3206	4.9	9.0	4.3	Q3603	1.0	4.9	0.3
Q3025	2.5	5.0	1.4	Q3207	8.9	-1.0	8.9	Q3604	0.0	9.0	0.0
Q3026	2.7	5.0	1.4	Q3208	-0.3	0.0	GND	Q3605	0.0	9.0	0.0
Q3027	2.8	5.0	1.4	Q3209	-0.3	0.0	GND	Q3606	0.0	9.0	0.0
Q3035	5.1	9.0	4.3	Q3210	2.7	GND	3.1	Q3609	1.9	4.9	1.3
Q3036	5.1	9.0	4.3	Q3211	0.4	8.9	GND	Q3610	0.0	9.0	0.0
Q3037	5.1	9.0	4.3	Q3213	3.8	7.9	3.2	Q3611	0.0	9.0	0.0
Q3038	4.9	9.0	4.1	Q3214	7.9	5.8	8.5	Q3612	0.0	9.0	0.0
Q3039	4.9	9.0	4.1	Q3215	8.5	0.0	9.0	Q3613	3.7	4.9	3.0
Q3040	4.9	9.0	4.1	Q3216	0.1	4.9	GND	Q3617	0.5	4.7	GND
Q3049	5.3	8.9	4.7	Q3217	3.6	9.0	3.1	Q3618	0.2	4.7	GND
Q3051	2.3	GND	3.0	Q3301	3.9	4.9	3.4	Q3619	0.5	0.1	GND
Q3053	2.0	GND	2.6	Q3302	4.9	4.9	3.4	Q3620	0.2	0.2	GND
Q3054	5.7	8.9	5.1	Q3303	0.5	4.9	0.1				

All voltages are in V.

B BOARD IC VOLTAGE LIST (1 OF 5)

IC3001		3	2.7	5	0.0	41	1.7	35	N/C	89	5.0	34	N/C
PIN	VOLT	4	2.8	6	GND	42	2.4	36	N/C	90	GND	35	N/C
1	3.2	5	0.0	7	GND	43	GND	37	N/C	91	N/C	36	2.6
2	3.2	6	GND	8	GND	44	N/C	38	N/C	92	N/C	37	N/C
3	3.2	7	GND	9	4.9	45	3.1	39	N/C	93	GND	38	N/C
4	1.2	8	GND	10	4.9	46	2.8	40	N/C	94	N/C	39	N/C
5	1.0	9	4.9	11	0.0	47	4.8	41	GND	95	2.9	40	1.7
6	GND	10	4.9	12	0.3	48	3.1	42	0.0	96	0.0	41	1.8
7	N/C	11	4.9	13	0.6	IC3089		43	5.0	97	2.9	42	2.4
8	N/C	12	0.1	14	0.3	PIN	VOLT	44	5.0	98	4.3	43	0.0
9	N/C	13	2.6	15	0.6	1	GND	45	4.9	99	2.9	44	2.4
10	1.0	14	2.7	16	4.9	2	GND	46	GND	100	4.3	45	3.4
11	0.9	15	2.5	IC3048		3	0.0	47	GND	IC3091		46	2.4
12	4.8	16	4.9	PIN	VOLT	4	GND	48	GND	PIN	VOLT	47	4.8
13	4.0	IC3003		1	1.7	5	4.6	49	N/C	1	N/C	48	3.1
14	4.0	PIN	VOLT	2	0.2	6	4.6	50	N/C	2	GND		
15	2.7	1	1.0	3	4.6	7	4.9	51	N/C	3	GND		
16	2.3	2	GND	4	4.6	8	4.9	52	N/C	4	4.9		
17	1.0	3	4.8	5	GND	IC3090		53	0.0	5	4.9		
18	2.8	4	1.0	6	N/C	PIN	VOLT	54	N/C	IC3110			
19	0.0	5	N/C	7	4.9	1	0.0	55	0.0	PIN	VOLT		
20	2.7	6	4.8	8	2.8	2	0.0	56	N/C	1	1.0		
21	0.0	7	0.5	9	N/C	3	0.0	57	0.0	2	4.6		
22	0.3	8	GND	10	N/C	4	N/C	58	N/C	3	4.6		
23	0.0	9	1.9	11	2.3	5	N/C	59	N/C	4	4.6		
24	GND	10	2.6	12	N/C	6	N/C	60	N/C	5	GND		
25	2.9	11	0.9	13	GND	7	N/C	61	N/C	6	N/C		
26	2.8	12	2.0	14	N/C	8	N/C	62	N/C	7	4.9		
27	2.2	13	GND	15	0.5	9	0.0	63	N/C	8	2.6		
28	4.8	14	0.0	16	2.4	10	0.0	64	N/C	9	N/C		
29	GND	15	GND	17	2.0	11	N/C	65	2.6	10	N/C		
30	4.6	16	GND	18	3.1	12	N/C	66	N/C	11	2.4		
31	4.6	17	N/C	19	N/C	13	N/C	67	N/C	12	N/C		
32	GND	18	GND	20	0.5	14	N/C	68	N/C	13	GND		
33	3.1	19	4.9	21	0.0	15	N/C	69	N/C	14	N/C		
34	3.1	20	N/C	22	1.8	16	N/C	70	N/C	15	0.5		
35	3.1	21	4.9	23	2.1	17	N/C	71	N/C	16	N/C		
36	3.2	22	GND	24	2.0	18	N/C	72	N/C	17	1.6		
37	3.2	23	N/C	25	3.4	19	N/C	73	GND	18	2.8		
38	N/C	24	GND	26	3.4	20	N/C	74	5.0	19	N/C		
39	N/C	25	2.4	27	3.4	21	N/C	75	GND	20	0.5		
40	4.8	26	4.8	28	0.0	22	N/C	76	N/C	21	0.0		
41	3.1	27	2.2	29	N/C	23	N/C	77	N/C	22	1.2		
42	3.1	28	2.2	30	N/C	24	N/C	78	N/C	23	2.0		
43	3.1	29	4.8	31	N/C	25	GND	79	N/C	24	1.9		
44	3.3	30	GND	32	4.8	26	GND	80	N/C	25	3.4		
45	3.2	31	GND	33	3.4	27	N/C	81	N/C	26	3.4		
46	N/C	32	1.0	34	3.1	28	N/C	82	GND	27	3.4		
47	N/C	IC3004		35	0.0	29	N/C	83	GND	28	N/C		
48	GND	PIN	VOLT	36	2.6	30	N/C	84	GND	29	N/C		
IC3002		1	0.6	37	3.4	31	N/C	85	GND	30	N/C		
PIN	VOLT	2	0.5	38	3.1	32	0.0	86	GND	31	N/C		
1	2.4	3	0.5	39	3.1	33	0.0	87	N/C	32	4.8		
2	0.0	4	0.5	40	1.7	34	N/C	88	N/C	33	N/C		

All voltages are in V.

B BOARD IC VOLTAGE LIST (2 OF 5)

IC3201		52	4.5	IC3301		IC3302		44	GND	96	2.0	148	1.6	200	GND
PIN	VOLT	53	3.8	PIN	VOLT	PIN	VOLT	45	N/C	97	1.3	149	2.2	201	GND
1	3.9	54	4.5	1	3.3	I	3.3	46	0.0	98	N/C	150	2.4	202	GND
2	4.4	55	N/C	2	1.5	G	GND	47	0.0	99	N/C	151	2.3	203	GND
3	3.9	56	3.4	3	1.6	O	2.2	48	0.0	100	0.0	152	2.3	204	GND
4	4.4	57	GND	4	GND	VC	3.3	49	0.0	101	N/C	153	2.0	205	GND
5	4.4	58	4.3	5	1.5	NC	0.0	50	3.3	102	0.2	154	1.2	206	GND
6	N/C	59	4.4	6	1.5	IC3303		51	GND	103	2.2	155	GND	207	3.3
7	4.9	60	3.9	7	3.3	PIN	VOLT	52	2.2	104	GND	156	1.6	208	GND
8	4.0	61	4.4	8	1.9	1	2.2	53	GND	105	0.4	157	3.3		
9	4.5	62	4.4	9	1.8	2	GND	54	3.3	106	1.0	158	N/C		
10	4.4	63	4.8	10	GND	3	GND	55	GND	107	1.0	159	N/C		
11	4.5	64	4.4	11	1.2	4	GND	56	GND	108	1.0	160	0.8		
12	4.4	IC3202		12	0.5	5	GND	57	GND	109	0.5	161	0.9		
13	N/C	PIN	VOLT	13	3.3	6	GND	58	GND	110	2.2	162	0.0		
14	N/C	1	GND	14	3.2	7	1.9	59	0.0	111	3.3	163	GND		
15	4.4	2	4.4	15	3.2	8	2.0	60	GND	112	GND	164	1.4		
16	4.4	3	9.0	16	3.2	9	2.0	61	0.0	113	0.5	165	1.9		
17	3.9	4	4.4	17	3.2	10	0.3	62	3.3	114	3.3	166	1.8		
18	4.4	5	4.4	18	3.2	11	1.9	63	3.3	115	GND	167	1.9		
19	4.4	6	4.4	19	0.0	12	GND	64	3.3	116	2.2	168	1.9		
20	N/C	7	N/C	20	0.0	13	0.6	65	GND	117	0.0	169	1.9		
21	4.9	8	N/C	21	0.0	14	1.0	66	GND	118	GND	170	1.9		
22	4.3	9	N/C	22	0.0	15	1.9	67	3.3	119	N/C	171	1.3		
23	4.4	10	4.4	23	0.0	16	1.3	68	GND	120	N/C	172	2.2		
24	3.9	11	4.4	24	0.0	17	1.0	69	0.0	121	N/C	173	GND		
25	4.4	12	4.4	25	3.3	18	1.0	70	3.3	122	1.4	174	1.5		
26	4.4	13	4.4	26	GND	19	1.2	71	GND	123	1.3	175	1.6		
27	N/C	14	N/C	27	0.0	20	1.0	72	3.3	124	1.4	176	1.3		
28	4.9	15	N/C	28	0.0	21	2.2	73	3.3	125	1.4	177	1.0		
29	N/C	16	4.4	29	0.0	22	GND	74	2.2	126	1.0	178	2.3		
30	N/C	17	4.4	30	0.0	23	3.3	75	GND	127	0.9	179	0.7		
31	N/C	18	4.4	31	0.0	24	GND	76	GND	128	1.1	180	1.6		
32	GND	19	4.4	32	0.0	25	0.8	77	GND	129	0.9	181	0.8		
33	4.4	20	N/C	33	N/C	26	0.8	78	3.3	130	GND	182	2.2		
34	4.6	21	N/C	34	3.3	27	0.6	79	3.3	131	N/C	183	GND		
35	GND	22	N/C	35	1.7	28	1.2	80	GND	132	N/C	184	N/C		
36	N/C	23	4.4	36	0.5	29	0.7	81	3.3	133	1.6	185	N/C		
37	N/C	24	4.4	37	N/C	30	0.9	82	3.3	134	1.6	186	N/C		
38	4.5	25	4.4	38	3.3	31	1.0	83	GND	135	2.2	187	GND		
39	N/C	26	GND	39	1.6	32	0.9	84	GND	136	2.2	188	GND		
40	4.5	27	4.6	40	1.6	33	3.3	85	3.3	137	2.2	189	GND		
41	4.5	28	4.6	41	GND	34	GND	86	GND	138	2.1	190	GND		
42	9.0	IC3203		42	1.5	35	0.0	87	GND	139	2.2	191	GND		
43	4.5	PIN	VOLT	43	1.5	36	0.0	88	GND	140	1.1	192	GND		
44	4.4	1	4.4	44	3.3	37	0.0	89	GND	141	2.2	193	GND		
45	4.5	2	4.4	45	1.8	38	0.0	90	GND	142	GND	194	GND		
46	N/C	3	4.4	46	2.0	39	0.0	91	N/C	143	3.3	195	GND		
47	4.4	4	GND	47	GND	40	0.0	92	N/C	144	GND	196	GND		
48	N/C	5	4.4	48	1.7	41	0.0	93	GND	145	N/C	197	2.2		
49	4.1	6	4.4	49	1.2	42	0.0	94	2.2	146	N/C	198	GND		
50	4.5	7	4.4	50	GND	43	2.2	95	1.0	147	1.6	199	GND		
51	4.4	8	9.0												

All voltages are in V.

B BOARD IC VOLTAGE LIST (3 OF 5)

IC3304		51	4.8	N/C	0.0	50	1.0	7	GND
PIN	VOLT	52	4.4	IC3402		51	1.6	8	N/C
1	1.6	53	2.4	PIN	VOLT	52	GND	9	0.0
2	GND	54	2.4	1	3.3	53	0.9	10	GND
3	GND	55	1.6	2	1.8	54	0.9	11	GND
4	GND	56	0.5	3	3.3	55	3.3	12	0.9
5	GND	57	GND	4	1.3	56	1.1	13	3.6
6	1.2	58	3.3	5	0.9	57	N/C	14	4.8
7	1.2	59	3.3	6	GND	58	GND	IC3405	
8	0.0	60	1.6	7	2.4	59	2.4	PIN	VOLT
9	1.9	61	3.2	8	2.2	60	0.0	1	4.8
10	0.1	62	4.8	9	3.3	61	2.4	2	0.3
11	0.8	63	2.1	10	0.9	62	2.2	3	GND
12	2.0	64	GND	11	2.8	63	1.7	4	0.3
13	1.6	IC3305		12	GND	64	1.7	5	4.8
14	3.3	PIN	VOLT	13	0.9	65	1.8	IC3406	
15	0.0	1	3.4	14	N/C	66	0.1	PIN	VOLT
16	3.3	2	GND	15	3.3	67	2.9	1	4.8
17	0.0	3	1.6	16	0.1	68	1.8	2	0.0
18	3.2	4	0.2	17	3.1	69	N/C	3	GND
19	3.2	5	1.3	18	2.9	70	N/C	4	0.0
20	3.2	6	1.4	19	3.3	71	0.1	5	4.8
21	3.2	7	GND	20	2.8	72	GND	IC3407	
22	3.2	8	N/C	21	N/C	73	N/C	PIN	VOLT
23	2.0	9	GND	22	1.7	74	1.8	1	4.8
24	1.1	10	GND	23	1.7	75	3.3	2	1.0
25	GND	11	GND	24	0.1	76	1.3	3	GND
26	4.8	12	1.4	25	0.1	77	0.7	4	2.4
27	2.4	13	2.2	26	2.3	78	GND	5	4.8
28	2.4	14	3.4	27	0.1	79	2.5		
29	3.2	IC3306		28	2.4	80	0.7		
30	4.8	PIN	VOLT	29	3.3	81	3.3		
31	2.4	1	4.8	30	N/C	82	1.0		
32	GND	2	GND	31	1.7	83	2.8		
33	1.5	3	1.9	32	GND	84	GND		
34	GND	4	3.3	33	1.6	85	1.1		
35	3.3	5	1.6	34	1.3	86	GND		
36	N/C	6	2.2	35	3.3	IC3403			
37	N/C	7	GND	36	1.6	PIN	VOLT		
38	GND	8	N/C	37	1.7	1	N/C		
39	GND	9	GND	38	GND	2	GND		
40	GND	10	GND	39	0.9	3	GND		
41	GND	11	GND	40	1.7	4	1.7		
42	GND	12	2.3	41	3.3	5	2.5		
43	GND	13	2.1	42	1.1	IC3404			
44	GND	14	4.2	43	3.3	PIN	VOLT		
45	4.9	IC3401		44	GND	1	4.8		
46	GND	PIN	VOLT	45	1.7	2	GND		
47	GND	I	3.3	46	GND	3	2.3		
48	1.5	G	GND	47	1.7	4	0.3		
49	GND	O	2.5	48	1.4	5	2.4		
50	0.0	VC	3.3	49	3.3	6	0.9		

All voltages are in V.

B BOARD IC VOLTAGE LIST (4 OF 5)

IC3408		53	1.4	107	3.3	161	0.7	215	1.0	20	0.8	4	0.1
PIN	VOLT	54	3.3	108	1.7	162	2.5	216	GND	21	GND	5	0.3
1	GND	55	GND	109	1.7	163	GND	217	GND	22	GND	6	GND
2	GND	56	1.6	110	1.1	164	2.5	218	GND	23	1.4	7	GND
3	N/C	57	1.6	111	1.7	165	0.7	219	GND	24	1.5	8	GND
4	N/C	58	1.5	112	0.9	166	1.3	220	GND	25	1.5	9	5.0
5	N/C	59	1.5	113	1.7	167	1.8	221	1.2	26	1.5	10	0.0
6	3.3	60	1.5	114	3.3	168	0.9	222	GND	27	1.5	11	5.0
7	GND	61	1.4	115	GND	169	1.1	223	GND	28	1.5	12	0.0
8	GND	62	2.4	116	1.6	170	1.1	224	GND	29	1.5	13	0.0
9	0.0	63	0.9	117	1.3	171	GND	225	GND	30	1.9	14	0.0
10	0.2	64	0.8	118	1.6	172	GND	226	GND	31	1.6	15	0.0
11	0.0	65	0.9	119	1.7	173	GND	227	GND	32	1.7	16	4.9
12	0.0	66	3.3	120	0.0	174	3.3	228	GND	33	1.6	IC3414	
13	0.0	67	GND	121	2.4	175	GND	229	GND	34	GND	PIN	VOLT
14	0.0	68	0.8	122	2.2	176	GND	230	GND	35	1.0	1	4.6
15	0.0	69	0.6	123	1.7	177	GND	231	GND	36	0.0	2	5.0
16	2.3	70	0.9	124	1.7	178	GND	232	GND	37	2.0	3	3.1
17	1.6	71	0.9	125	1.8	179	GND	233	GND	38	2.6	4	GND
18	3.3	72	3.2	126	3.3	180	GND	234	GND	39	4.8	5	3.1
19	GND	73	3.2	127	GND	181	GND	235	GND	40	4.8	6	3.1
20	0.6	74	0.9	128	0.1	182	GND	236	GND	41	4.8	7	5.0
21	1.1	75	GND	129	0.1	183	GND	237	GND	42	1.0	8	4.6
22	2.2	76	3.3	130	2.3	184	GND	238	GND	43	0.0	9	4.6
23	2.2	77	2.5	131	0.1	185	GND	239	GND	44	0.5	10	GND
24	2.4	78	GND	132	0.1	186	GND	240	GND	45	0.0	11	4.6
25	2.4	79	1.7	133	1.7	187	GND	IC3409		46	0.0	12	5.0
26	2.3	80	3.3	134	1.7	188	GND	PIN	VOLT	47	0.0	13	8.9
27	2.2	81	N/C	135	2.8	189	GND	I	3.3	48	4.8	14	4.6
28	1.6	82	2.5	136	GND	190	GND	G	3.3	IC3411		15	GND
29	0.9	83	2.3	137	1.6	191	GND	O	2.5	PIN	VOLT	16	4.6
30	GND	84	0.4	138	3.3	192	GND	VC	3.3	1	3.2		
31	1.1	85	0.0	139	GND	193	3.3	NC	0.0	2	N/C		
32	1.0	86	0.0	140	1.5	194	2.4	IC3410		3	3.2		
33	1.5	87	2.3	141	0.0	195	2.4	PIN	VOLT	4	GND		
34	1.4	88	1.6	142	2.6	196	0.0	1	GND	5	0.1		
35	1.4	89	2.5	143	3.0	197	2.4	2	GND	6	3.3		
36	2.4	90	GND	144	3.1	198	GND	3	0.9	7	0.0		
37	1.8	91	1.2	145	2.5	199	1.0	4	0.9	8	3.3		
38	GND	92	3.3	146	0.0	200	N/C	5	0.6	IC3412			
39	1.4	93	3.0	147	0.0	201	0.0	6	0.8	PIN	VOLT		
40	1.4	94	3.0	148	0.9	202	1.0	7	0.9	1	0.3		
41	1.5	95	GND	149	2.8	203	GND	8	0.8	2	5.0		
42	2.4	96	3.3	150	GND	204	GND	9	0.9	3	N/C		
43	GND	97	GND	151	0.9	205	N/C	10	2.4	4	GND		
44	0.8	98	3.3	152	2.2	206	2.4	11	GND	5	GND		
45	1.0	99	1.1	153	2.4	207	GND	12	GND	6	GND		
46	0.7	100	0.9	154	0.7	208	1.0	13	1.2	7	0.3		
47	2.4	101	2.5	155	1.3	209	2.4	14	1.1	8	5.0		
48	0.9	102	GND	156	2.5	210	1.0	15	1.0	IC3413			
49	1.0	103	0.9	157	1.8	211	GND	16	0.9	PIN	VOLT		
50	1.1	104	1.6	158	1.1	212	2.0	17	2.4	1	0.0		
51	1.2	105	1.0	159	2.8	213	4.5	18	0.7	2	0.5		
52	1.9	106	1.4	160	1.6	214	2.4	19	1.0	3	0.1		

All voltages are in V.

B BOARD IC VOLTAGE LIST (5 OF 5)

IC3601	
PIN	**VOLT**
1	N/C
2	N/C
3	N/C
4	N/C
5	N/C
6	N/C
7	0.2
8	0.1
9	4.9
10	GND
11	2.4
12	2.1
13	GND
14	GND
15	GND
16	4.9
17	4.9
18	GND
19	GND
20	1.6
21	2.4
22	1.5
23	4.9
24	0.0
25	N/C
26	N/C
27	N/C
28	N/C
29	N/C
30	N/C
31	0.0
32	0.0
33	0.0
34	0.0
35	N/C
36	0.0
37	N/C
38	2.4
39	2.4
40	4.9
41	4.9
42	GND
43	GND
44	N/C
45	N/C
46	N/C
47	N/C
48	4.6
49	N/C
50	4.6
51	N/C
52	N/C
53	N/C

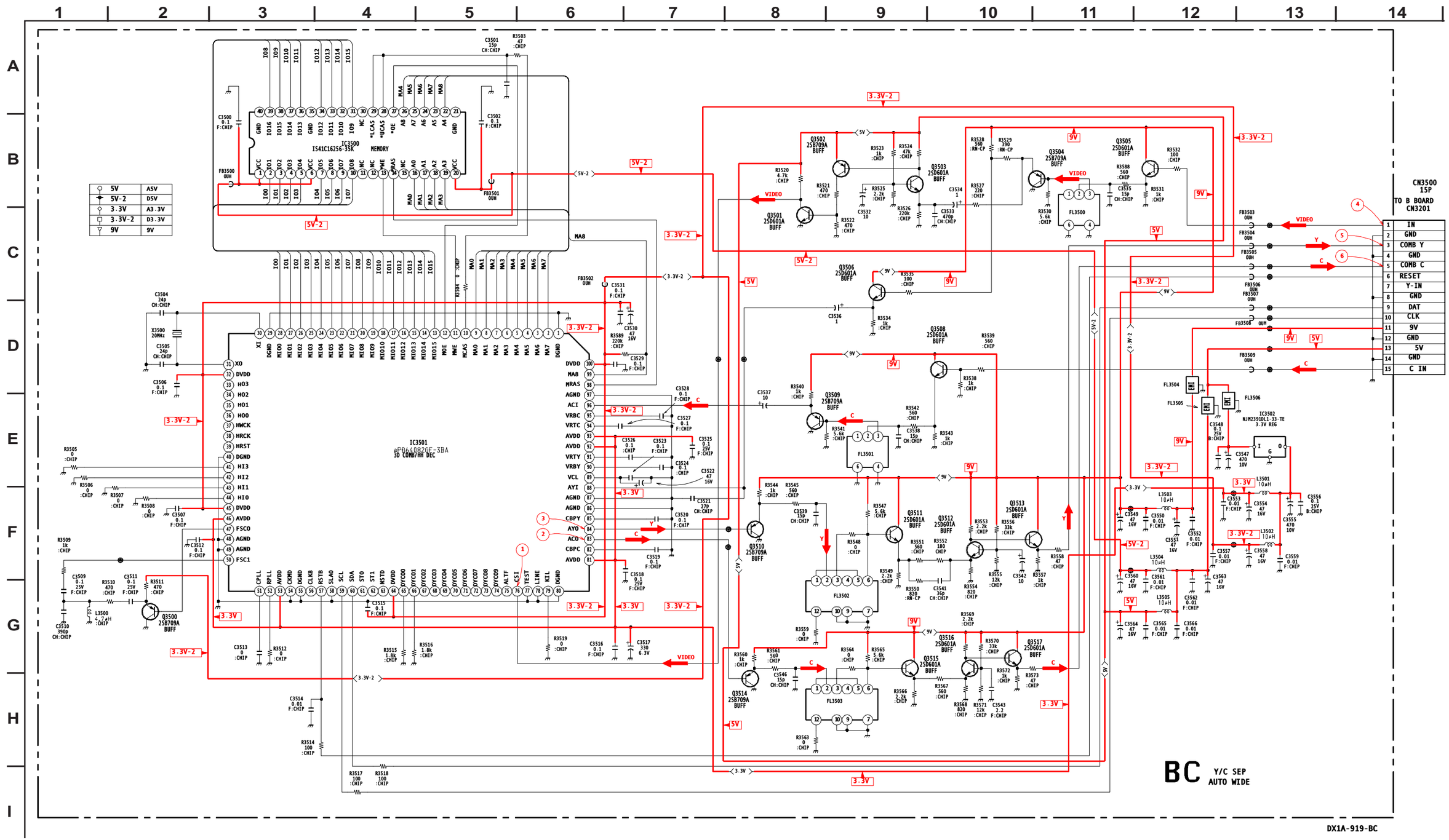
IC3602	
PIN	**VOLT**
1	N/C
2	N/C
3	N/C
4	N/C
5	N/C
6	N/C
7	0.2
8	0.1
9	4.9
10	GND
11	2.4
12	2.2
13	GND
14	GND
15	GND
16	4.9
17	GND
18	GND
19	GND
20	1.7
21	2.5
22	2.5
23	4.9
24	2.4
25	N/C
26	N/C
27	N/C
28	N/C
29	N/C
30	N/C
31	0.0
32	0.0
33	0.0
34	0.0
35	N/C
36	0.0
37	N/C
38	2.4
39	2.4
40	4.9
41	4.9
42	GND
43	GND
44	N/C
45	N/C
46	N/C
47	N/C
48	4.6
49	N/C
50	4.6
51	N/C
52	N/C
53	N/C
54	N/C
55	GND
56	GND
57	GND
58	GND
59	GND
60	GND
61	N/C
62	N/C
63	N/C
64	N/C

IC3603	
PIN	**VOLT**
1	4.9
2	GND
3	4.9
4	1.4
5	4.9
6	1.9
7	1.6
8	GND
9	4.6
10	4.6
11	4.9
12	2.6
13	2.4
14	GND
15	0.1
16	0.1

IC3604	
PIN	**VOLT**
1	0.1
2	0.1
3	2.5
4	GND
5	2.5
6	0.0
7	0.1
8	5.0

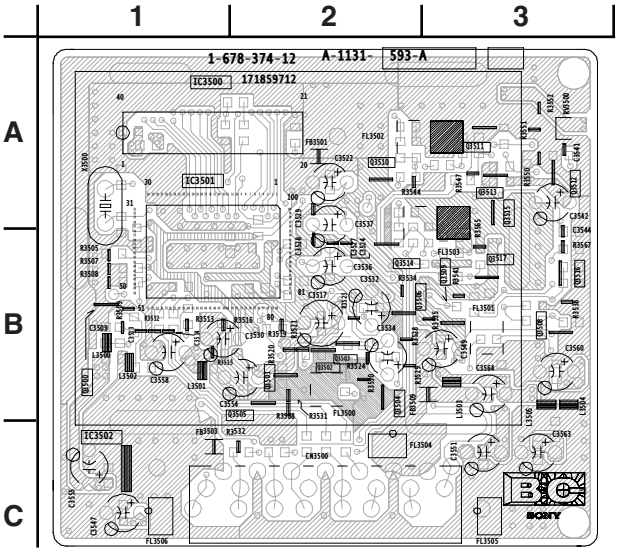
All voltages are in V.

BC BOARD SCHEMATIC DIAGRAM

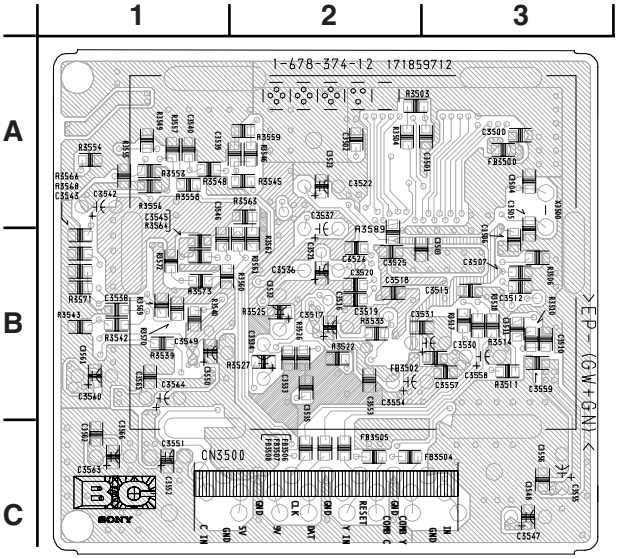


BC [Y/C SEP, AUTO WIDE]

COMPONENT SIDE



CONDUCTOR SIDE



BC BOARD LOCATOR LIST

IC		Q3506	B-3
IC3500	A-1	Q3508	B-3
IC3501	A-1	Q3509	B-3
IC3502	C-1	Q3510	A-2
TRANSISTOR		Q3511	A-3
Q3500	B-1	Q3512	A-3
Q3501	B-2	Q3513	A-3
Q3502	B-2	Q3514	B-2
Q3503	B-2	Q3515	A-3
Q3504	B-2	Q3516	B-3
Q3505	C-2	Q3517	B-3

BC BOARD TRANSISTOR VOLTAGE LIST

	B	C	E		B	C	E
Q3500	1.7	GND	2.3	Q3510	1.7	GND	2.3
Q3501	0.1	4.2	GND	Q3511	2.9	8.9	2.3
Q3502	4.6	0.4	4.9	Q3512	2.3	6.1	1.7
Q3503	3.3	4.7	4.0	Q3513	6.1	8.9	5.5
Q3504	2.9	GND	3.5	Q3514	1.6	GND	2.3
Q3505	3.8	8.9	3.2	Q3515	2.9	8.9	2.3
Q3506	6.0	8.9	5.3	Q3516	2.3	6.4	1.7
Q3508	2.4	8.9	1.8	Q3517	6.4	8.9	5.7
Q3509	1.6	GND	2.3				

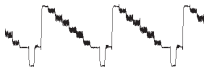
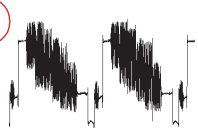
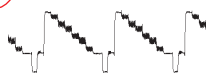
All voltages are in V.

BC BOARD IC VOLTAGE LIST

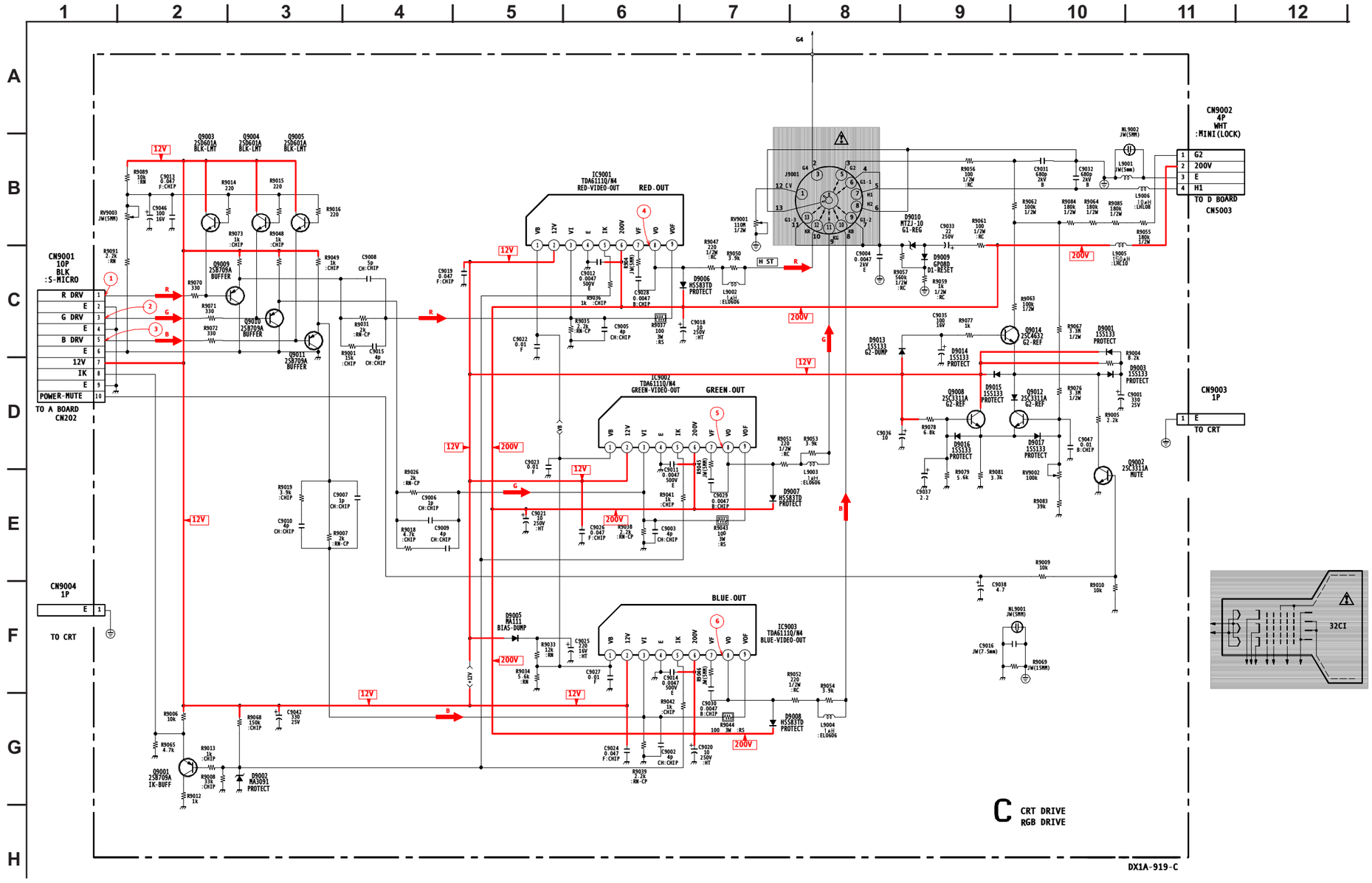
IC3500		18	1.5	37	1.8	14	2.5	33	N/C	52	0.0	71	N/C	90	0.9
PIN	**VOLT**	19	1.5	38	1.8	15	1.3	34	N/C	53	3.2	72	N/C	91	1.6
1	4.8	20	4.8	39	1.8	16	1.2	35	N/C	54	GND	73	N/C	92	3.2
2	2.0	21	N/C	40	N/C	17	1.9	36	N/C	55	GND	74	N/C	93	3.2
3	2.0	22	1.5	**IC3501**		18	1.8	37	N/C	56	N/C	75	N/C	94	3.2
4	1.8	23	1.5	**PIN**	**VOLT**	19	1.9	38	N/C	57	5.0	76	4.1	95	2.0
5	1.9	24	1.5	1	GND	20	1.8	39	N/C	58	GND	77	GND	96	2.6
6	4.8	25	1.5	2	1.5	21	0.9	40	GND	59	4.5	78	GND	97	GND
7	1.0	26	1.5	3	1.5	22	0.8	41	0.0	60	4.5	79	0.0	98	0.5
8	1.4	27	2.4	4	1.5	23	1.4	42	0.0	61	N/C	80	GND	99	1.5
9	1.1	28	1.0	5	1.5	24	1.0	43	0.0	62	N/C	81	3.2	100	3.2
10	0.8	29	1.0	6	1.5	25	1.8	44	0.0	63	N/C	82	1.0	**IC3502**	
11	N/C	30	N/C	7	1.5	26	1.8	45	3.2	64	3.2	83	1.6	**PIN**	**VOLT**
12	N/C	31	1.9	8	1.5	27	1.3	46	3.2	65	0.0	84	1.7	I	4.8
13	2.9	32	2.5	9	1.5	28	2.0	47	1.7	66	0.0	85	1.0	G	GND
14	0.5	33	1.3	10	1.0	29	GND	48	GND	67	N/C	86	GND	O	3.3
15	N/C	34	1.2	11	2.8	30	1.4	49	GND	68	N/C	87	GND		
16	1.5	35	N/C	12	2.4	31	1.5	50	1.4	69	N/C	88	1.3		
17	1.5	36	1.9	13	1.9	32	3.2	51	0.0	70	N/C	89	0.5		

All voltages are in V.

BC BOARD WAVEFORMS

1 5.0 Vp-p (H)	2 0.54 Vp-p (H)
3  1.0Vp-p (H)	4  2.3 Vp-p (H)
5  2.5 Vp-p (H)	6 0.98 Vp-p (H)

C BOARD SCHEMATIC DIAGRAM

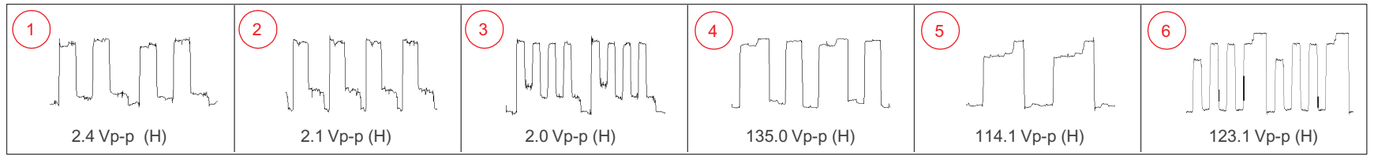


C BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q9001	7.5	0.0	3.6
Q9002	0.2	11.1	GND
Q9003	2.1	12.0	4.0
Q9004	2.1	12.0	3.2
Q9005	3.2	12.0	2.1
Q9008	5.4	12.0	4.8
Q9009	4.0	GND	4.6
Q9010	3.2	GND	4.0
Q9011	4.7	GND	3.9
Q9012	5.4	10.5	4.8
Q9014	11.7	450.0	11.1

All voltages are in V.

C BOARD WAVEFORMS



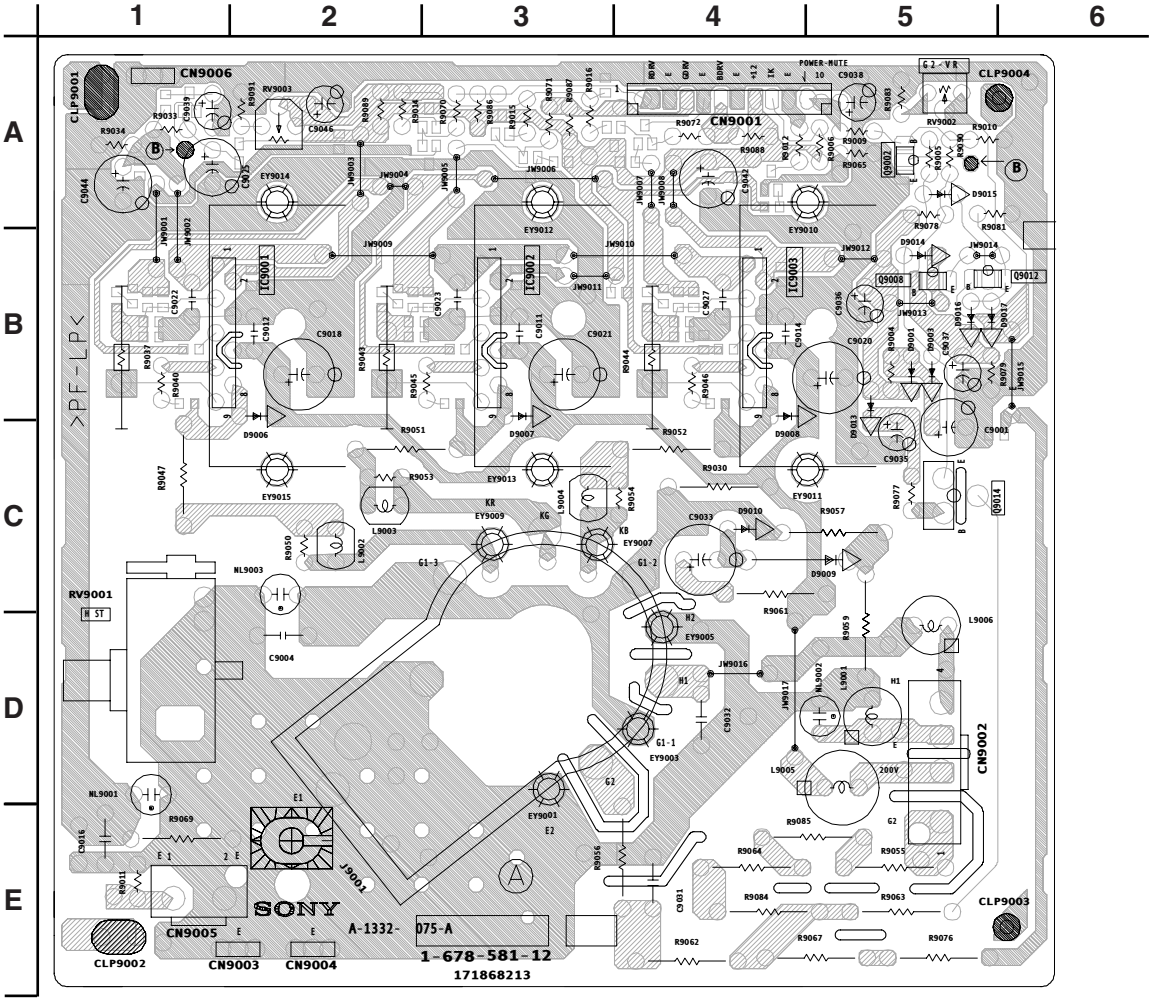
C BOARD IC VOLTAGE LIST

IC9001		IC9002		IC9003	
PIN	VOLT	PIN	VOLT	PIN	VOLT
1	3.5	1	3.5	1	3.5
2	12.0	2	12.0	2	12.0
3	3.5	3	3.5	3	3.5
4	GND	4	GND	4	GND
5	8.7	5	8.6	5	7.8
6	198.5	6	198.5	6	198.5
7	17.9	7	115.0	7	147.0
8	150.0	8	154.0	8	150.0
9	118.2	9	114.0	9	115.0

All voltages are in V.

C [CRT DRIVE, RGB DRIVE]

COMPONENT SIDE

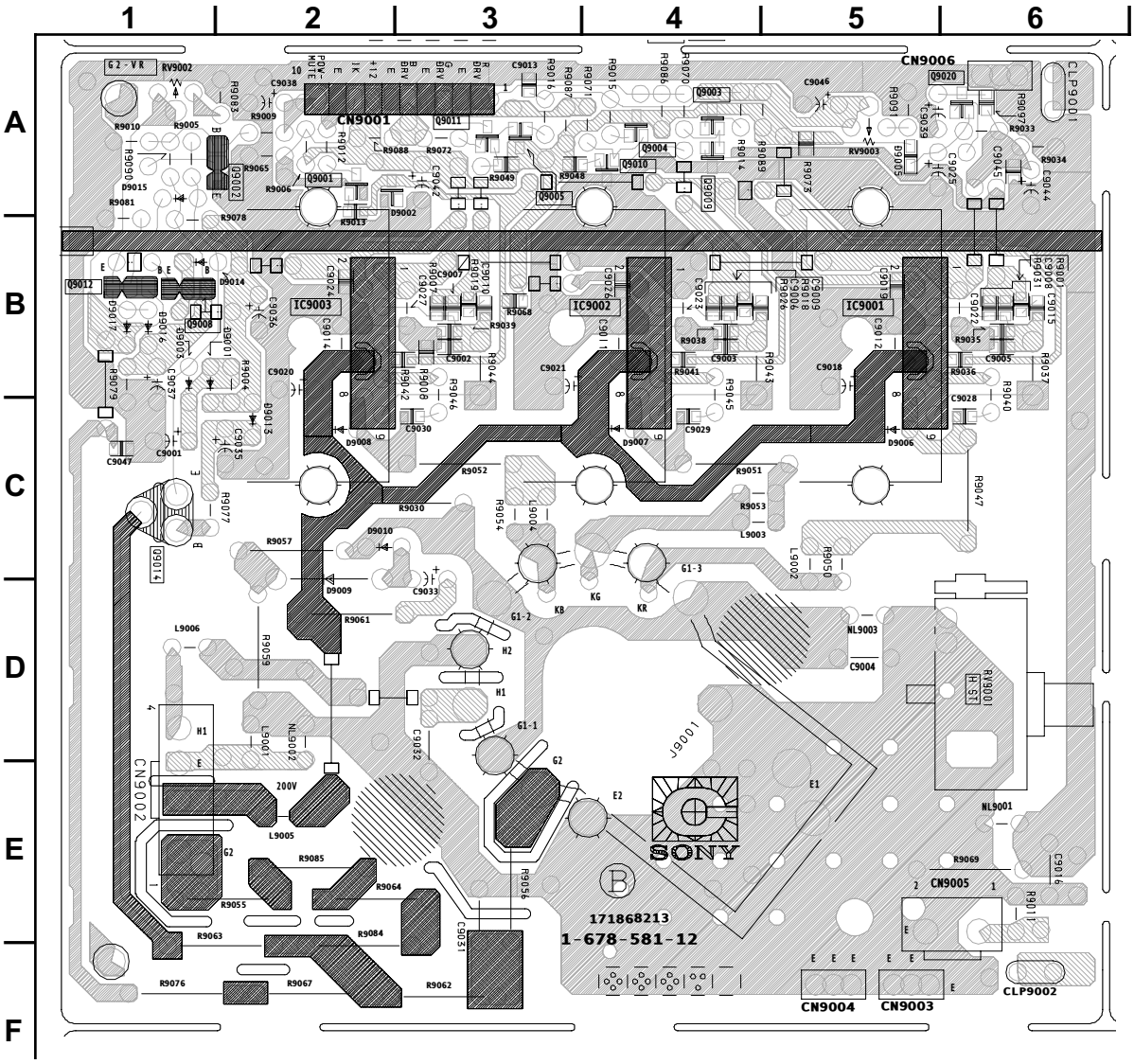


C BOARD LOCATOR LIST (COMPONENT SIDE)

DIODE		D9016	B-6
D9001	B-6	D9017	B-6
D9003	B-6	IC	
D9007	C-3	IC9001	B-2
D9008	C-5	IC9002	B-3
D9009	D-5	IC9003	B-5
D9010	C-5	TRANSISTOR	
D9013	C-5	Q9002	A-5
D9014	B-6	Q9014	C-6
D9015	A-6		

C [CRT DRIVE, RGB DRIVE]

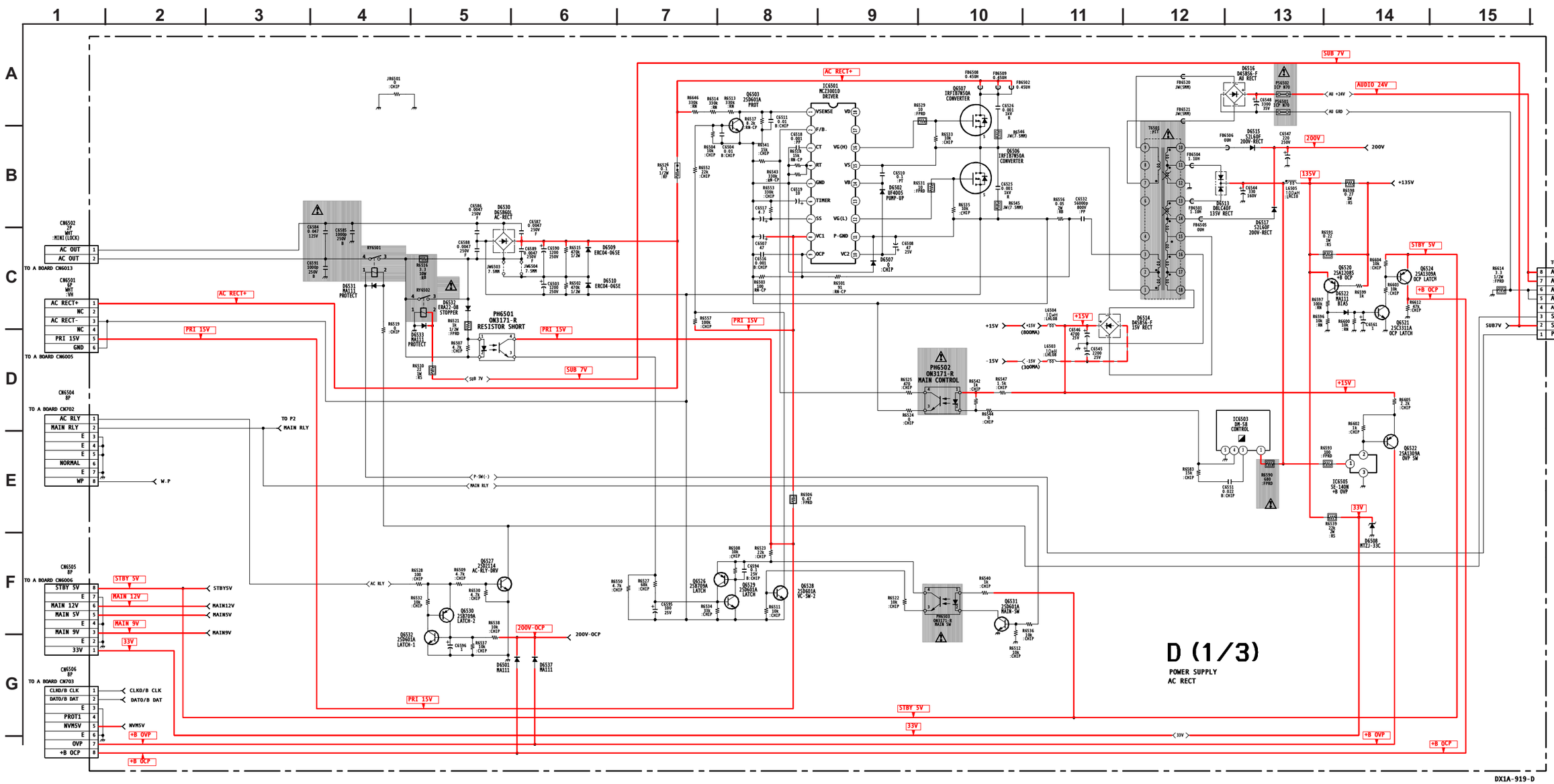
CONDUCTOR SIDE



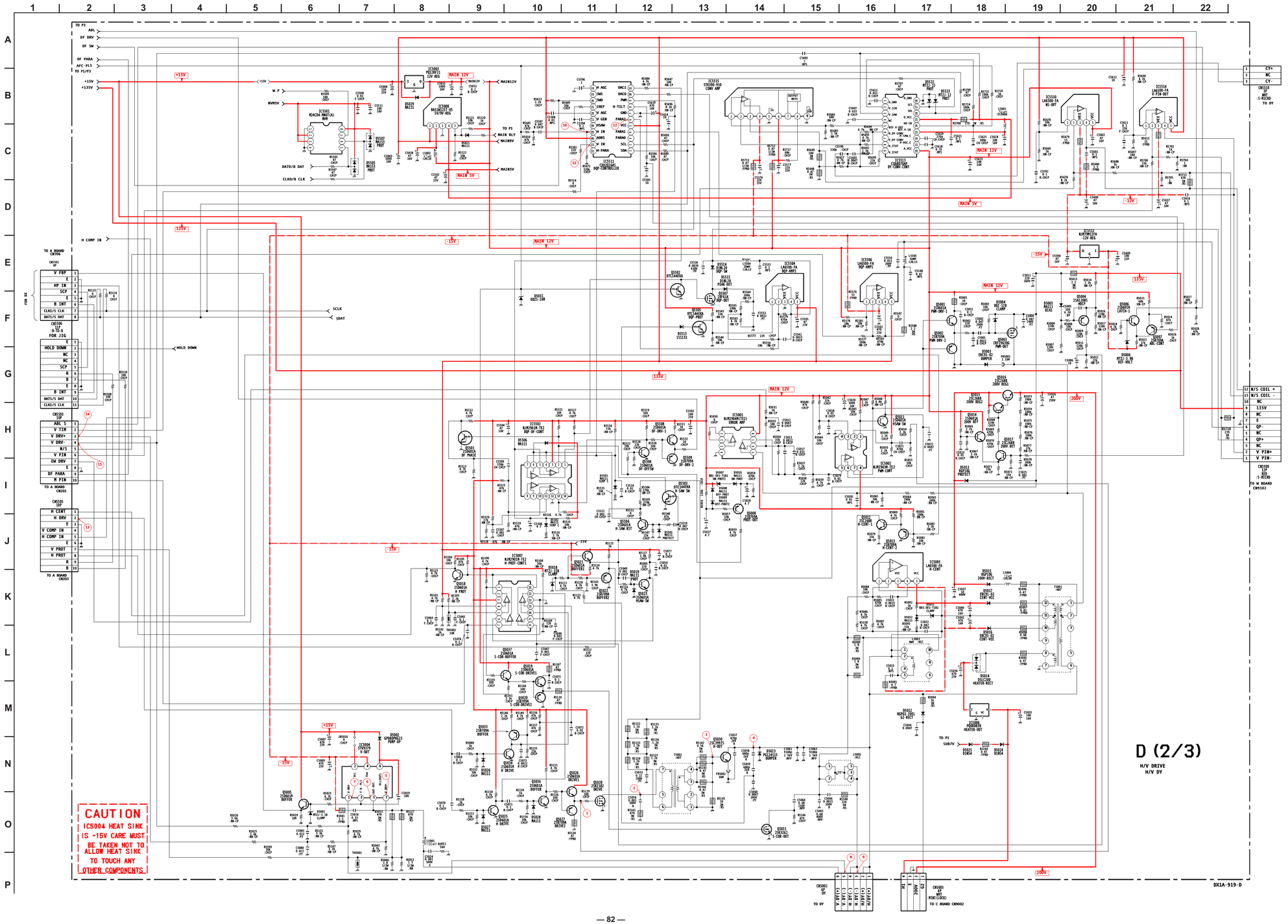
C BOARD LOCATOR LIST (CONDUCTOR SIDE)

DIODE		Q9004	A-4
D9002	A-2	Q9005	A-3
D9005	A-5	Q9008	B-1
D9006	C-5	Q9009	A-4
TRANSISTOR		Q9010	A-4
Q9001	A-2	Q9011	A-3
Q9003	A-4	Q9012	B-1

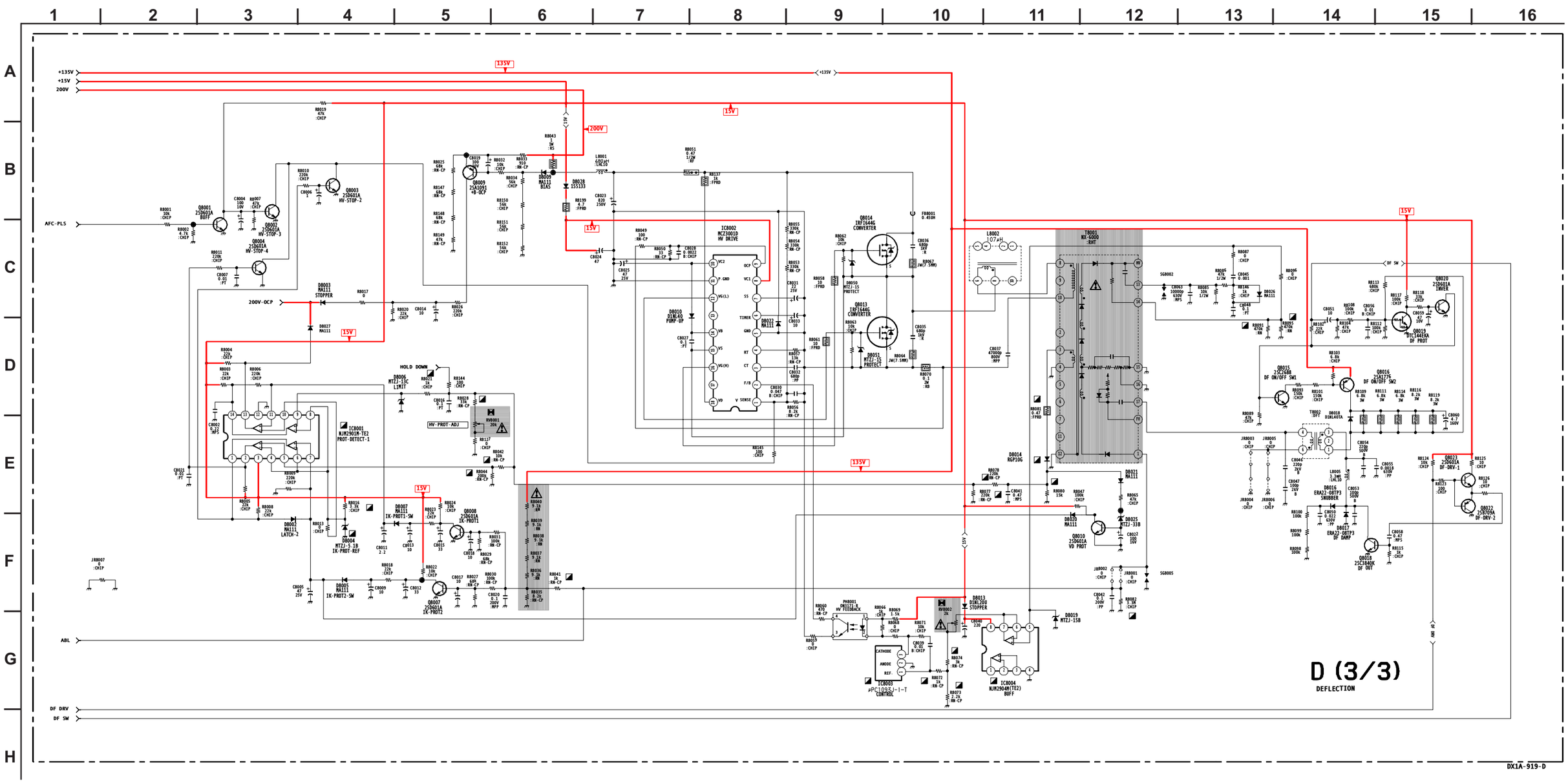
D BOARD SCHEMATIC DIAGRAM (1 OF 3)



D BOARD SCHEMATIC DIAGRAM (2 OF 3)

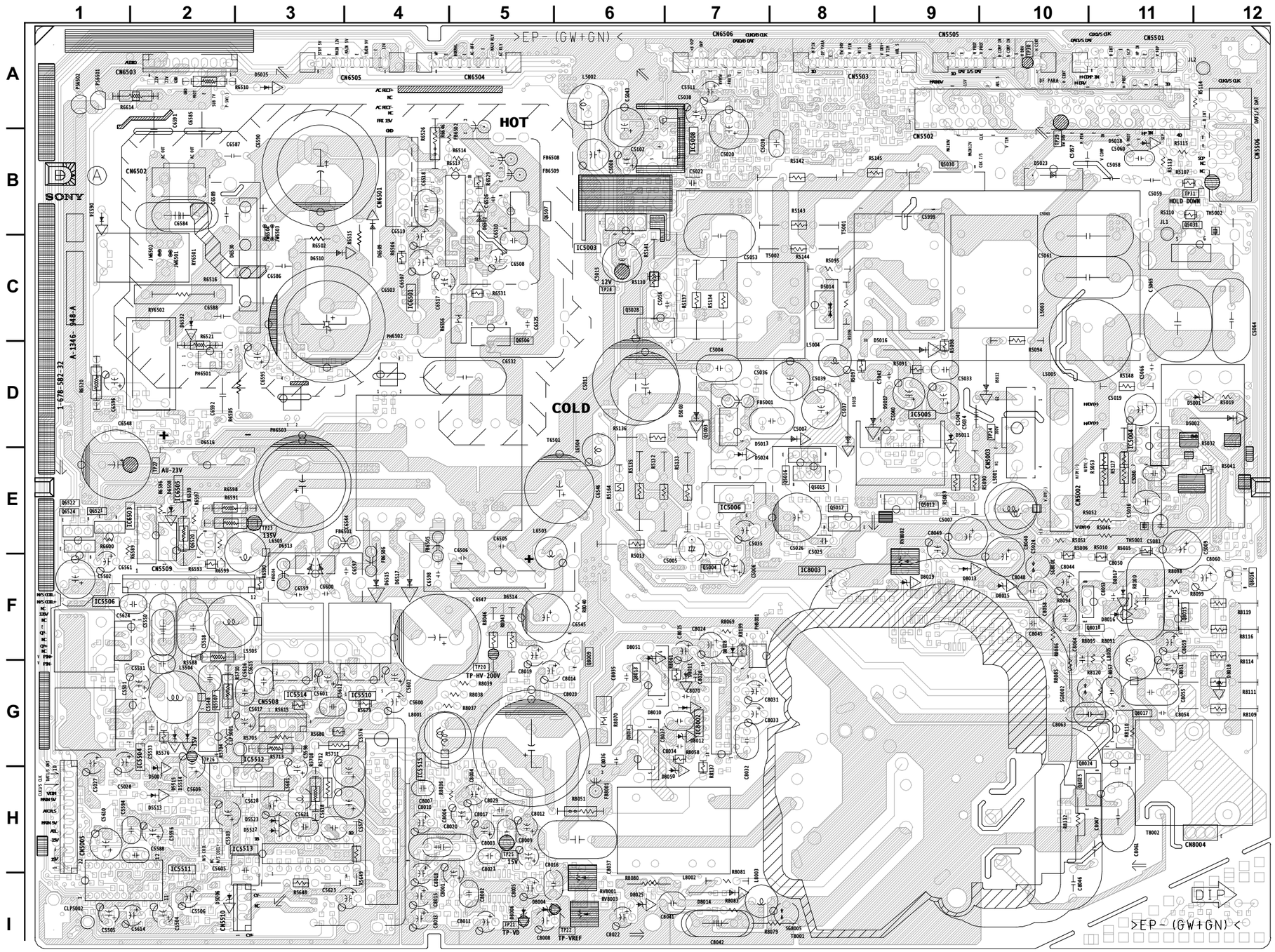

CAUTION
IC5004 HEAT SINK IS -15V CARE WUST BE TAKEN NOT TO ALLOW HEAT SINK TO TOUCH ANY OTHER COMPONENTS
D (2/3)
H/V DRIVE
H/V DY
DX1A-919-D

D BOARD SCHEMATIC DIAGRAM (3 OF 3)



D [POWER SUPPLY, AC RECT, H/V DRIVE, H/V DY, DEFLECTION]

COMPONENT SIDE

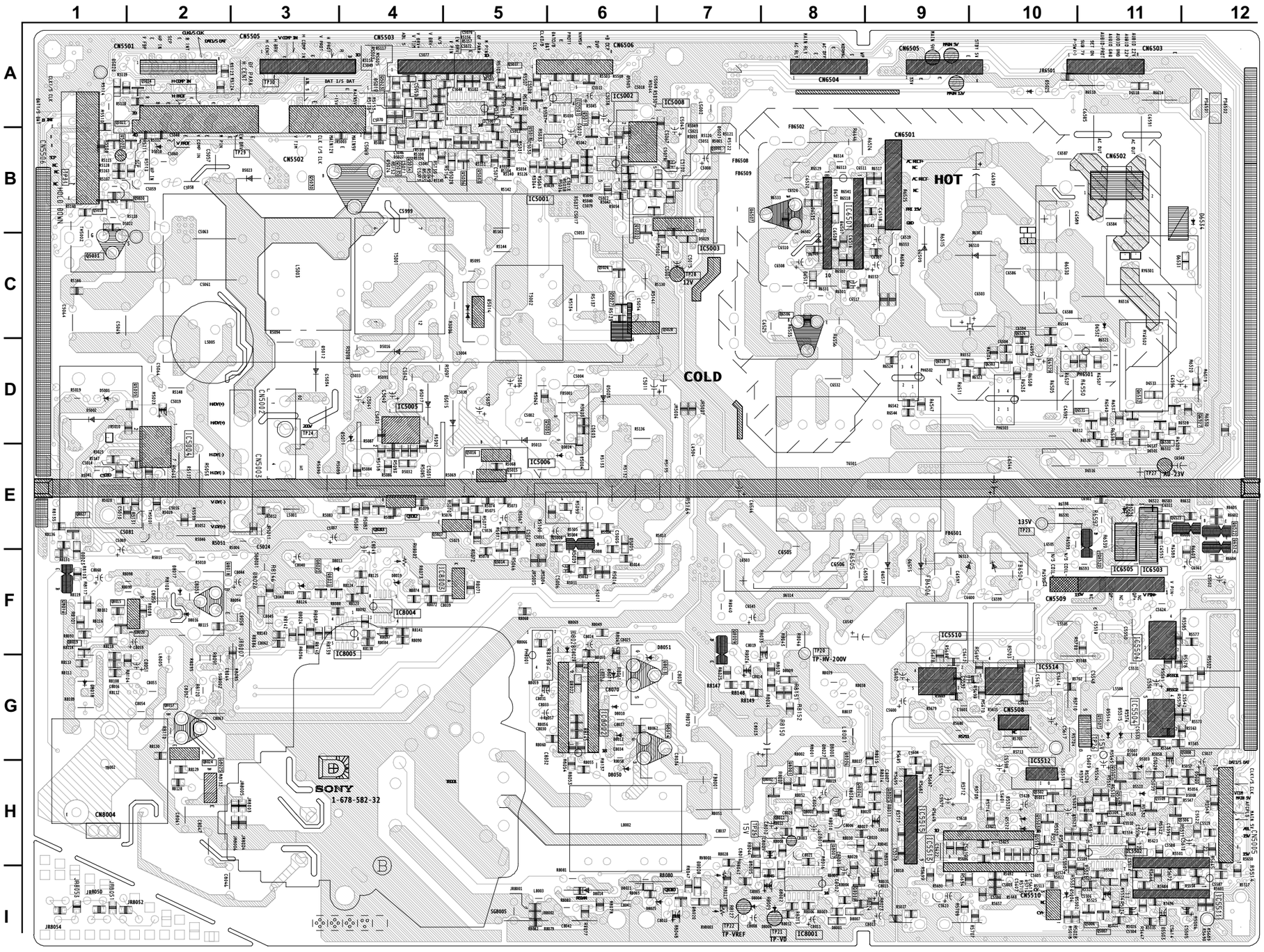


D BOARD LOCATOR LIST (COMPONENT SIDE)

DIODE		D8028	F-7
D5001	D-12	D8050	H-6
D5002	D-12	D8051	F-6
D5003	D-7	**IC**	
D5006	I-2	IC5004	D-11
D5007	H-2	IC5005	D-9
D5011	D-9	IC5006	E-7
D5012	D-10	IC5504	H-2
D5013	D-7	IC5506	F-1
D5014	C-8	IC5510	G-4
D5015	D-8	IC5511	I-2
D5016	C-9	IC5512	H-3
D5017	D-9	IC5513	H-3
D5018	B-11	IC5514	G-3
D5023	B-10	IC5515	H-4
D5024	E-7	IC6501	C-4
D5025	A-3	IC6503	E-2
D5513	H-2	IC6505	E-2
D5514	H-2	IC8002	G-7
D5515	H-2	IC8003	F-8
D5522	H-3	**TRANSISTOR**	
D5523	H-3	Q5003	D-7
D6502	C-5	Q5004	F-7
D6508	E-2	Q5030	B-9
D6509	C-4	Q5031	B-11
D6510	C-3	Q5507	G-2
D6513	F-3	Q6507	B-5
D6514	G-6	Q6521	E-1
D6515	F-4	Q6522	E-1
D6516	D-2	Q6524	E-1
D6517	F-4	Q8009	G-6
D6532	C-2	Q8013	G-6
D8004	I-5	Q8014	G-6
D8006	I-5	Q8015	F-11
D8017	F-11	Q8018	F-11
D8018	G-12		
D8019	F-9		
D8025	I-6		

D [POWER SUPPLY, AC RECT, H/V DRIVE, H/V DY, DEFLECTION]

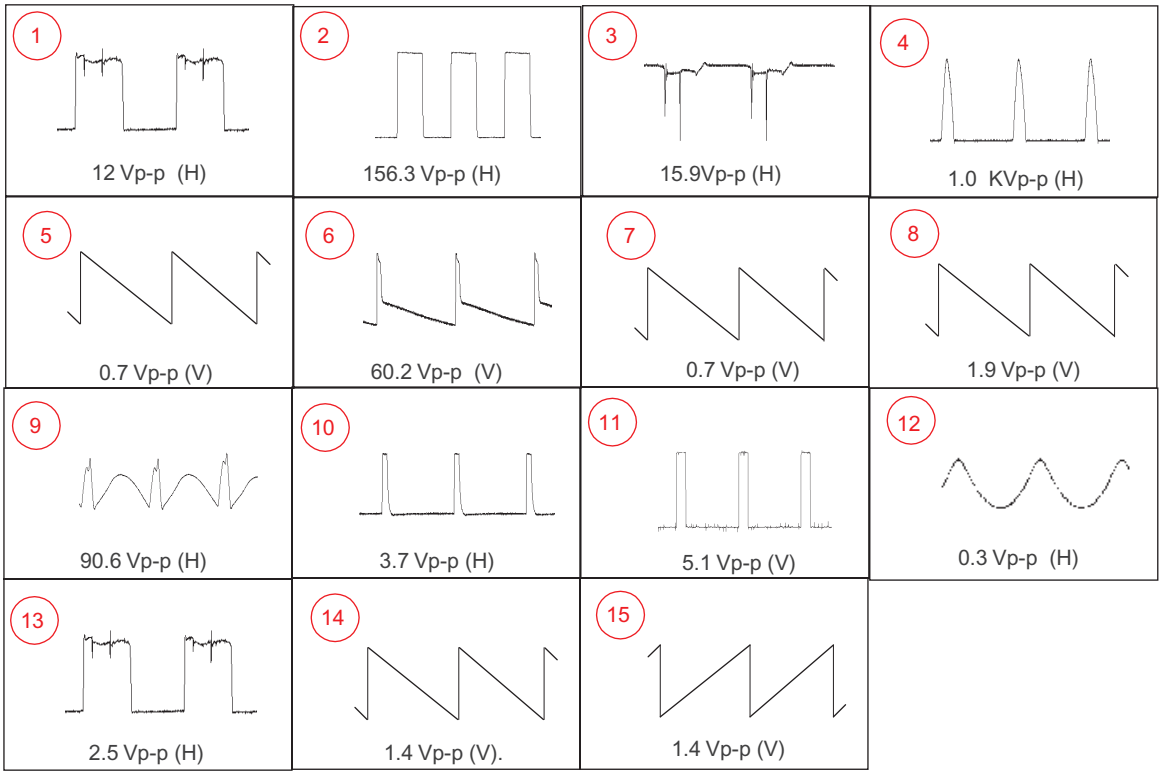
CONDUCTOR SIDE



D BOARD LOCATOR LIST (CONDUCTOR SIDE)

DIODE		D8021	I-6	Q5033	B-4
D5004	E-6	D8022	G-6	Q5034	B-4
D5005	F-6	D8026	G-5	Q5035	B-4
D5008	H-12	D8027	G-8	Q5036	B-5
D5009	H-12	IC		Q5037	A-5
D5010	H-11	IC5001	B-5	Q5501	H-10
D5019	B-3	IC5002	A-6	Q5502	H-10
D5021	B-6	IC5003	C-7	Q5503	H-10
D5026	B-4	IC5007	A-5	Q5504	H-11
D5027	B-4	IC5008	A-7	Q5505	H-11
D5028	B-4	IC5501	A-6	Q5506	H-12
D5029	C-7	IC5502	H-11	Q5508	H-11
D5031	H-10	IC8001	I-8	Q5509	H-11
D5032	E-4	IC8004	F-4	Q6503	D-10
D5501	I-12	TRANSISTOR		Q6506	D-7
D5502	I-11	Q5001	B-7	Q6520	F-11
D5503	I-12	Q5002	B-7	Q6526	C-10
D5505	A-6	Q5005	D-2	Q6527	D-11
D5506	H-11	Q5006	I-11	Q6528	D-9
D5507	B-5	Q5007	I-11	Q6529	D-11
D6501	D-11	Q5008	G-12	Q6530	D-11
D6507	B-8	Q5011	A-6	Q6531	D-10
D6522	E-11	Q5012	E-4	Q6532	D-11
D6530	C-10	Q5013	E-4	Q8001	H-8
D6531	C-11	Q5014	E-4	Q8002	H-8
D6533	D-11	Q5015	E-5	Q8003	H-8
D6537	E-11	Q5016	E-5	Q8004	H-8
D8002	I-8	Q5017	E-4	Q8007	H-8
D8003	I-8	Q5018	B-5	Q8008	I-8
D8005	I-8	Q5019	B-1	Q8010	I-7
D8007	I-8	Q5020	B-2	Q8016	F-1
D8009	G-7	Q5021	B-2	Q8019	F-1
D8010	G-6	Q5022	B-2	Q8020	F-2
D8013	F-4	Q5023	A-4	Q8022	F-4
D8014	I-6	Q5026	C-6	Q8023	F-4
D8016	F-2	Q5027	C-6		
D8020	I-7	Q5028	C-7		

D BOARD WAVEFORMS



D BOARD TRANSISTOR VOLTAGE LIST

	B	C	E		B	C	E		B	C	E
Q5001	2.9	12.0	3.3	Q5027	5.2	0.0	5.2	Q6528	0.6	0.0	0.0
Q5002	2.9	GND	3.3	Q5030	132.0	0.0	GND	Q6529	0.0	5.9	0.0
Q5003	127.4	134.1	23.3	Q5033	10.0	1.4	10.5	Q6530	4.7	0.0	4.7
Q5004	132.0	0.0	133.0	Q5034	0.0	1.4	GND	Q6531	0.6	0.0	GND
Q5005	-0.5	15.6	0.1	Q5035	0.0	2.5	GND	Q6532	0.0	4.7	GND
Q5006	-12.0	1.0	-11.9	Q5036	0.1	5.2	GND	Q8001	0.1	0.0	GND
Q5007	0.3	-11.9	0.9	Q5037	3.1	12.1	3.7	Q8002	0.0	1.6	GND
Q5008	11.9	0.0	10.7	Q5501	0.3	3.0	GND	Q8003	0.2	1.6	GND
Q5011	0.1	3.9	GND	Q5502	0.5	5.4	GND	Q8004	0.0	1.6	GND
Q5012	3.7	97.7	3.2	Q5503	0.5	0.3	GND	Q8007	0.6	0.0	GND
Q5013	3.1	GND	3.7	Q5504	0.0	4.0	GND	Q8008	0.6	0.0	GND
Q5014	6.6	12.1	6.1	Q5505	0.0	4.2	GND	Q8009	196.0	0.0	196.0
Q5015	202.8	212.4	203.2	Q5506	0.3	2.3	GND	Q8010	0.6	0.0	GND
Q5016	203.2	212.4	202.6	Q5508	4.0	12.1	4.6	Q8015	0.5	0.0	GND
Q5017	6.5	164.8	6.1	Q5509	4.0	GND	4.6	Q8016	134.5	134.7	135.1
Q5018	0.6	1.9	GND	Q6503	0.0	2.5	0.0	Q8018	-5.5	94.4	GND
Q5019	3.7	12.1	2.9	Q6520	131.0	0.0	132.0	Q8019	3.5	0.0	GND
Q5020	3.7	GND	2.9	Q6521	0.0	2.1	GND	Q8020	0.0	0.5	GND
Q5021	0.4	9.0	0.5	Q6522	15.7	0.0	15.7	Q8022	4.6	GND	4.9
Q5022	0.4	GND	1.1	Q6524	2.1	0.4	4.9	Q8023	4.6	15.5	4.9
Q5023	0.4	3.9	GND	Q6526	5.9	0.0	5.9				
Q5026	5.2	12.1	5.2	Q6527	0.6	0.0	0.0				

All voltages are in V.

	D	G	S		D	G	S
Q5028	5.2	33.5	GND	Q6507	154.4	303.3	150.0
Q5031	2.9	12.6	GND	Q8013	4.6	94.8	0.0
Q5507	5.4	6.9	GND	Q8014	99.0	198.0	93.2
Q6506	4.7	149.2	0.0				

All voltages are in V.

D BOARD IC VOLTAGE LIST

IC5001	
PIN	VOLT
1	11.0
2	11.0
3	N/C
4	GND
5	4.0
6	4.0
7	6.6
8	12.1

IC5002	
PIN	VOLT
1	0.1
2	6.0
3	3.8
4	GND
5	2.3
6	3.7
7	2.9
8	12.1

IC5003	
PIN	VOLT
I	15.6
G	GND
O	12.1

IC5004	
PIN	VOLT
1	1.2
2	15.6
3	-12.6
4	-14.5
5	0.2
6	16.2
7	1.2

IC5005	
PIN	VOLT
1	100.0
2	99.7
3	-95.3
4	100.0
5	104.6

IC5006	
PIN	VOLT
I	7.8
G	GND
O	6.3
VC	N/C

IC5007	
PIN	VOLT
1	3.1
2	0.6
3	12.1
4	1.5
5	2.3
6	5.5
7	3.5
8	0.0
9	3.0
10	1.4
11	6.1
12	GND
13	2.5
14	0.6

IC5008	
PIN	VOLT
1	9.1
2	12.0
3	GND
4	5.0
5	5.2

IC5501	
PIN	VOLT
1	GND
2	5.0
3	5.0
4	GND
5	4.6
6	4.6
7	5.0
8	5.0

IC5502	
PIN	VOLT
1	5.4
2	2.4
3	12.1
4	3.6
5	3.4
6	3.4
7	3.9
8	N/C
9	N/C
10	0.0
11	0.0
12	GND
13	3.7
14	N/C

IC5504	
PIN	VOLT
1	4.2
2	4.2
3	GND
4	6.4
5	9.0

IC5506	
PIN	VOLT
1	4.3
2	4.3
3	-15.5
4	5.2
5	9.0

IC5510	
PIN	VOLT
1	GND
2	5.0
3	5.0
4	GND
5	4.6
6	4.6
7	5.0
8	5.0

IC5511	
PIN	VOLT
1	4.6
2	4.6
3	N/C
4	4.2
5	9.0
6	3.7
7	GND
8	5.4
9	1.9
10	0.3
11	4.4
12	6.4
13	N/C
14	8.2
15	1.9
16	4.0
17	4.9
18	N/C
19	3.6
20	9.0
21	0.9
22	N/C

IC5512	
PIN	VOLT
I	-15.8
G	GND
O	-12.0

IC5513	
PIN	VOLT
1	4.5
2	4.9
3	4.9
4	4.6
5	5.0
6	5.0
7	N/C
8	4.6
9	4.4
10	12.1
11	4.0
12	5.0
13	5.0
14	0.5
15	1.1
16	4.6
17	4.6
18	GND

IC5514	
PIN	VOLT
1	0.3
2	0.3
3	-12.0
4	0.7
5	9.0

IC5515	
PIN	VOLT
1	3.4
2	3.4
3	-0.2
4	-15.3
5	GND
6	12.0
7	-14.5
8	2.7
9	GND

IC6501	
PIN	VOLT
1	2.5
2	1.8
3	2.2
4	2.5
5	GND

IC6503	
PIN	VOLT
1	134.0
2	N/C
3	2.5
4	12.5
5	GND

IC6505	
PIN	VOLT
1	134.9
2	15.7
3	GND
4	5.0
5	4.3
6	5.0
7	0.0
8	5.0
9	4.2
10	5.0

IC8001	
PIN	VOLT
1	0.1
2	0.0
3	15.6
4	5.0
5	4.3
6	5.0
7	0.0
8	5.0
9	4.2
10	5.0
11	0.1
12	GND
13	0.1
14	0.1

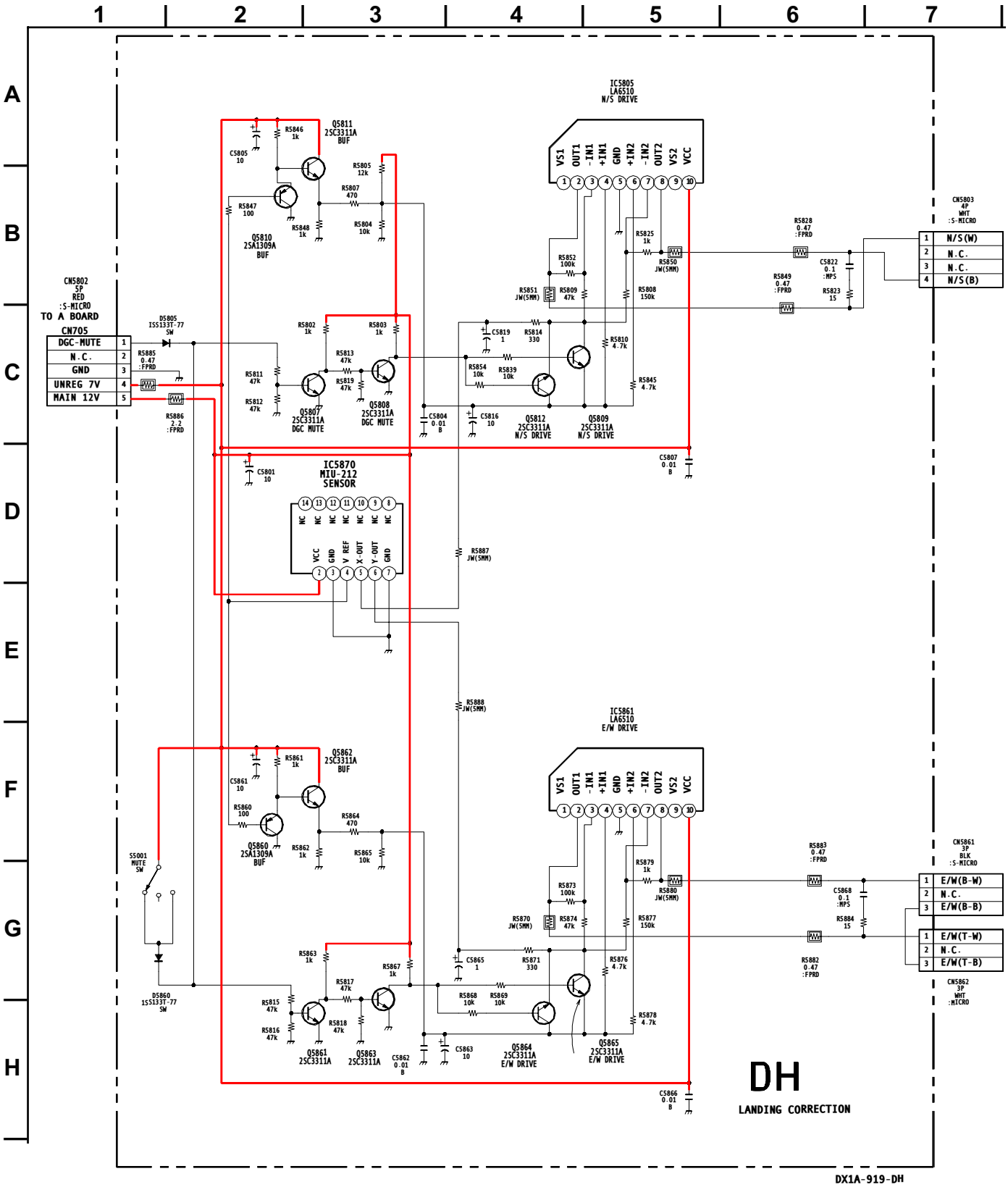
IC8002	
PIN	VOLT
1	1.6
2	1.8
3	2.2
4	2.5
5	GND
6	0.0
7	4.7
8	14.8
9	0.0
10	10.4
11	GND
12	4.5
13	N/C
14	108.2
15	98.3
16	102.6
17	N/C
18	198.0

IC8003	
PIN	VOLT
1	2.4
2	GND
3	11.0

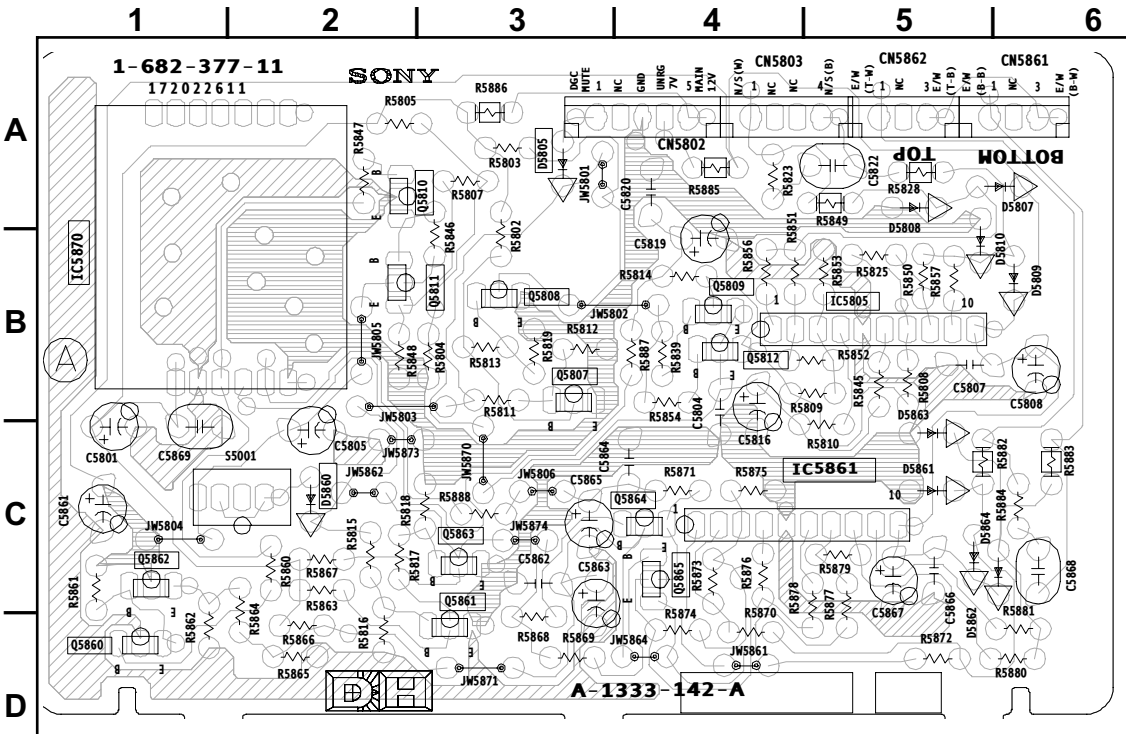
IC8004	
PIN	VOLT
1	N/C
2	N/C
3	N/C
4	GND
5	7.1
6	7.1
7	7.1
8	15.2

All voltages are in V.

DH BOARD SCHEMATIC DIAGRAM



DH [LANDING CORRECTION]



DH BOARD IC VOLTAGE LIST

IC5805		IC5861		IC5870	
PIN	VOLT	PIN	VOLT	PIN	VOLT
1	N/C	1	N/C	1	N/C
2	2.5	2	3.0	2	12.0
3	2.4	3	2.8	3	GND
4	2.6	4	3.0	4	2.5
5	GND	5	GND	5	0.9
6	2.6	6	3.0	6	2.6
7	2.6	7	3.0	7	GND
8	2.6	8	3.0	8	N/C
9	N/C	9	GND	9	N/C
10	6.4	10	6.4	10	N/C
11	N/C				
12	N/C				
13	N/C				
14	N/C				

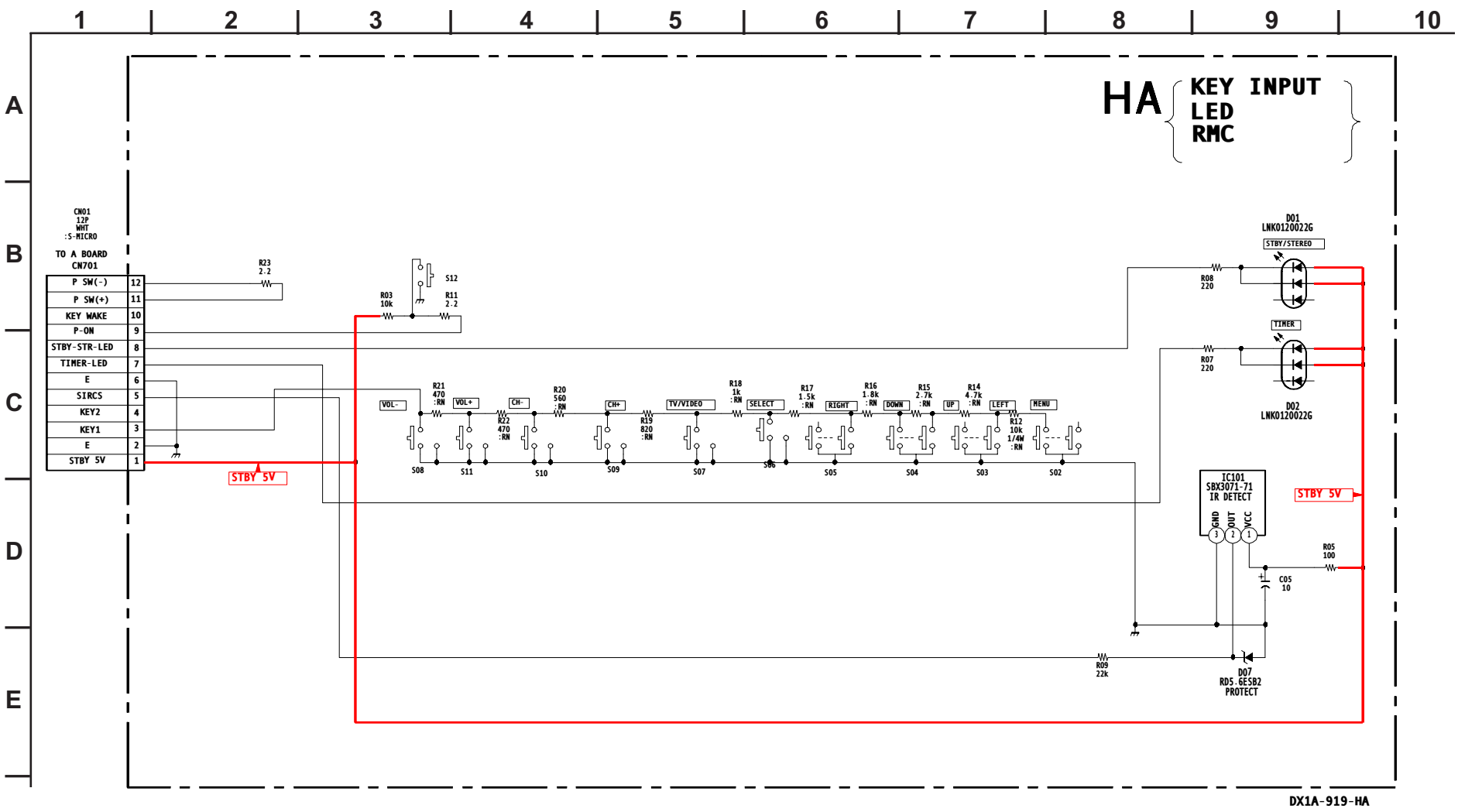
All voltages are in V.

DH BOARD TRANSISTOR VOLTAGE LIST

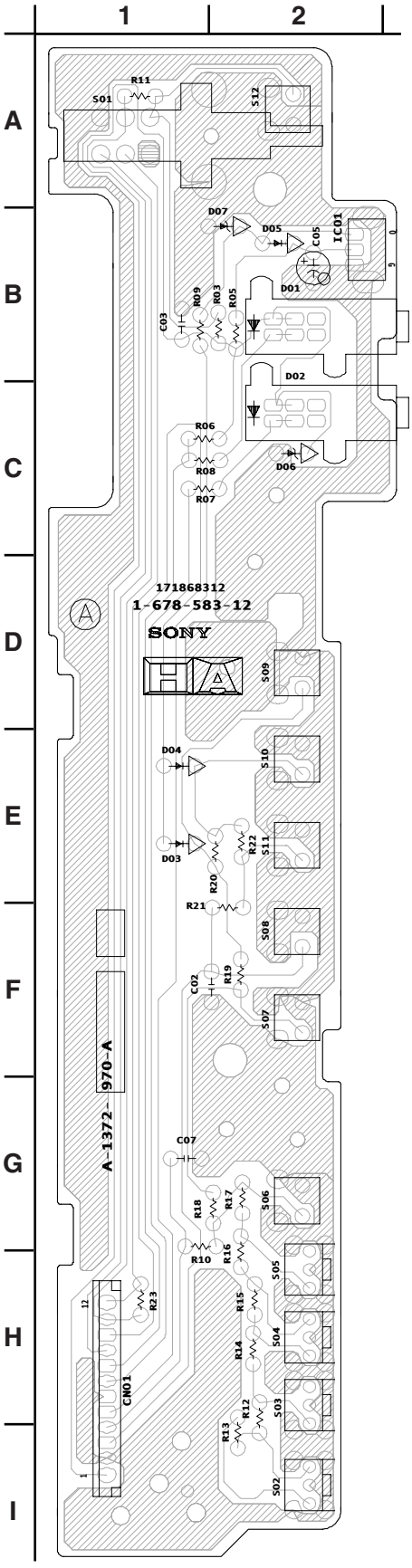
	B	C	E		B	C	E
Q5807	0.7	0.1	GND	Q5860	2.5	GND	3.2
Q5808	0.0	10.6	GND	Q5861	0.7	0.1	GND
Q5809	3.2	2.6	2.6	Q5862	3.2	6.3	2.6
Q5810	2.5	GND	3.2	Q5863	0.0	10.6	GND
Q5811	3.2	6.4	2.5	Q5864	3.6	2.9	2.9
Q5812	3.2	2.5	2.6	Q5865	3.7	3.0	3.0

All voltages are in V.

HA BOARD SCHEMATIC DIAGRAM



HA [KEY INPUT, LED, RMC]



HA BOARD IC VOLTAGE LIST

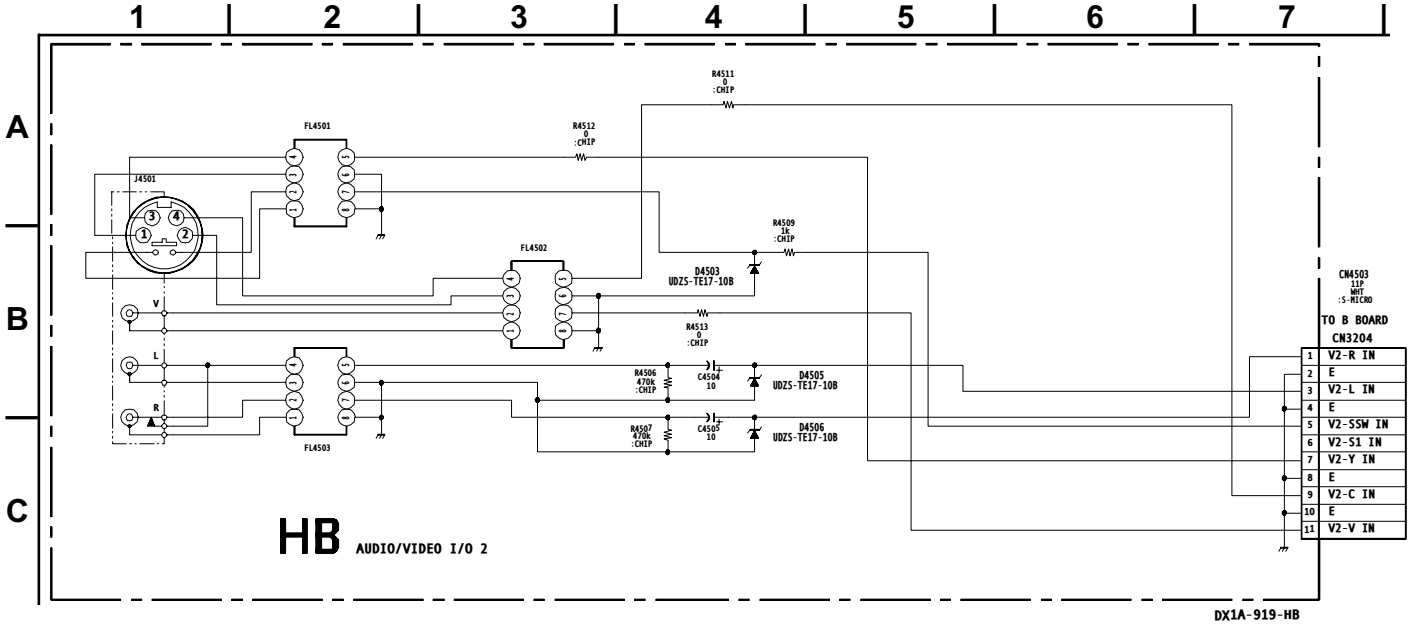
IC101	
PIN	VOLT
1	4.9
2	0.0
3	4.3

All voltages are in V.

HA BOARD LOCATOR LIST

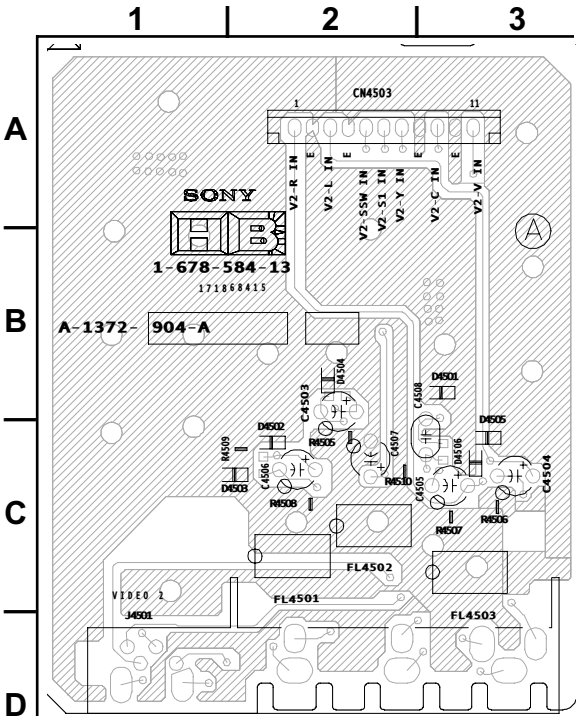
DIODE	
D01	B-2
D02	C-2
D07	B-2
IC	
IC01	B-3

HB BOARD SCHEMATIC DIAGRAM

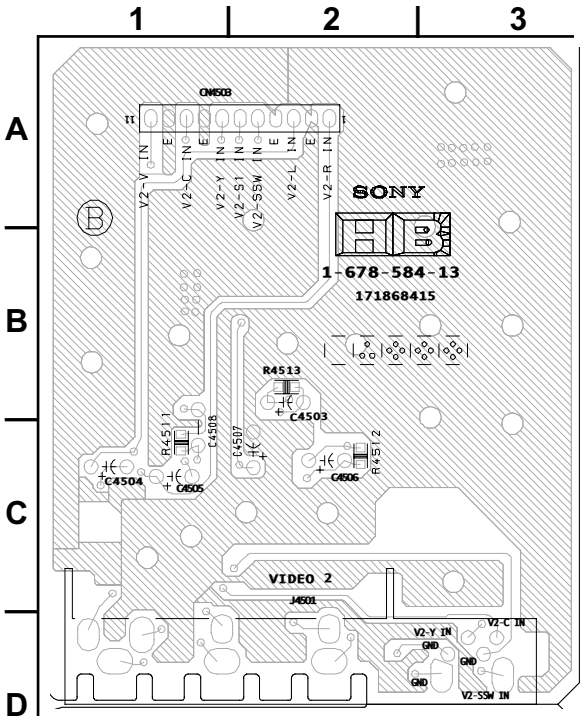


HB [AUDIO/VIDEO I/O 2]

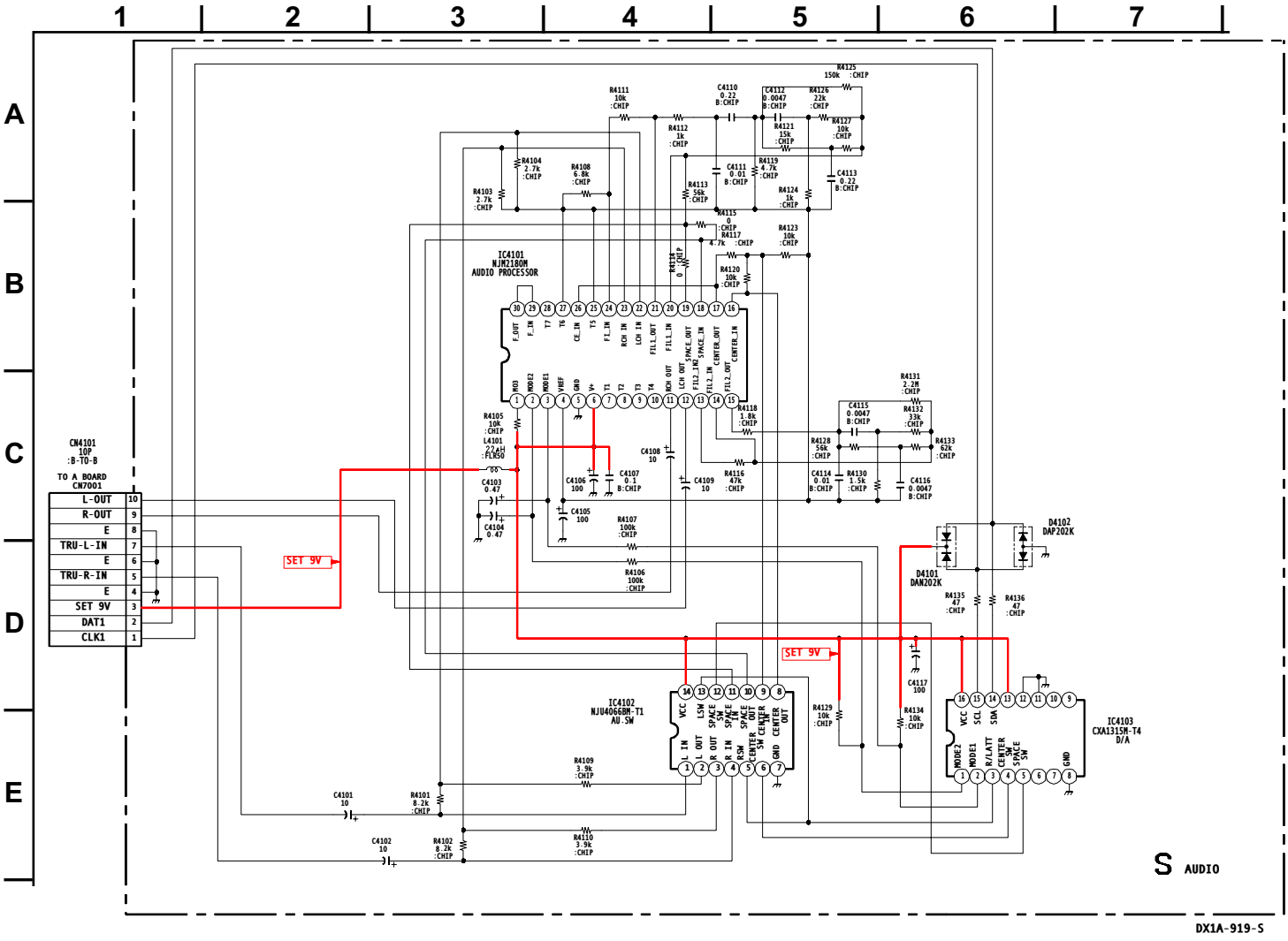
COMPONENT SIDE



CONDUCTOR SIDE

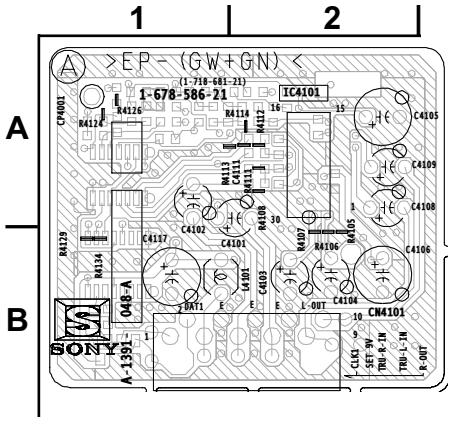


S BOARD SCHEMATIC DIAGRAM

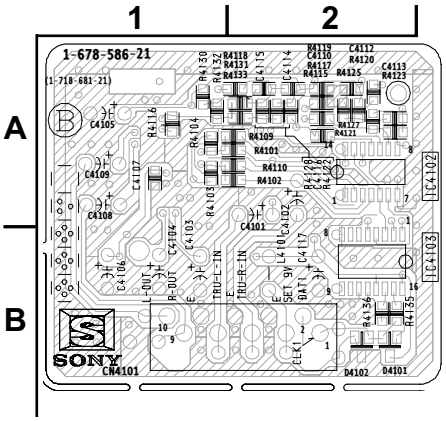


S [AUDIO]

COMPONENT SIDE



CONDUCTOR SIDE



S BOARD IC VOLTAGE LIST

IC4101		22	4.5	13	8.6
PIN	VOLT	23	4.5	14	9.0
1	8.4	24	4.5	IC4103	
2	0.1	25	4.5	PIN	VOLT
3	0.1	26	4.5	1	0.1
4	4.5	27	4.5	2	0.1
5	GND	28	N/C	3	8.6
6	9.0	29	4.5	4	0.3
7	N/C	30	4.5	5	0.3
8	N/C	IC4102		6	N/C
9	N/C	PIN	VOLT	7	N/C
10	N/C	1	4.5	8	GND
11	4.5	2	4.5	9	N/C
12	4.5	3	4.5	10	N/C
13	4.5	4	4.5	11	GND
14	4.5	5	8.6	12	GND
15	4.5	6	0.3	13	9.0
16	4.5	7	GND	14	4.5
17	4.5	8	4.5	15	4.5
18	4.5	9	4.5	16	9.0
19	4.5	10	4.5	All voltages are in V.	
20	4.5	11	4.5		
21	4.5	12	0.3		

U BOARD SCHEMATIC DIAGRAM

U VIDEO I/O

J2408 5P
YPBPR FOR HD OR DVD
VIDEO 6

J2407 5P
YPBRR FOR HD OR DVD
VIDEO 5

J2401 6P
S TERMINAL BLOCK
VIDEO 1

VIDEO 3

J2409 2P
VAR OR FIX OUT

J2402 3P
VIDEO 4

J2403 3P
MONITOR OUT

J2406 3P
CONTROL S IN
CONTROL S OUT

J2405 3P

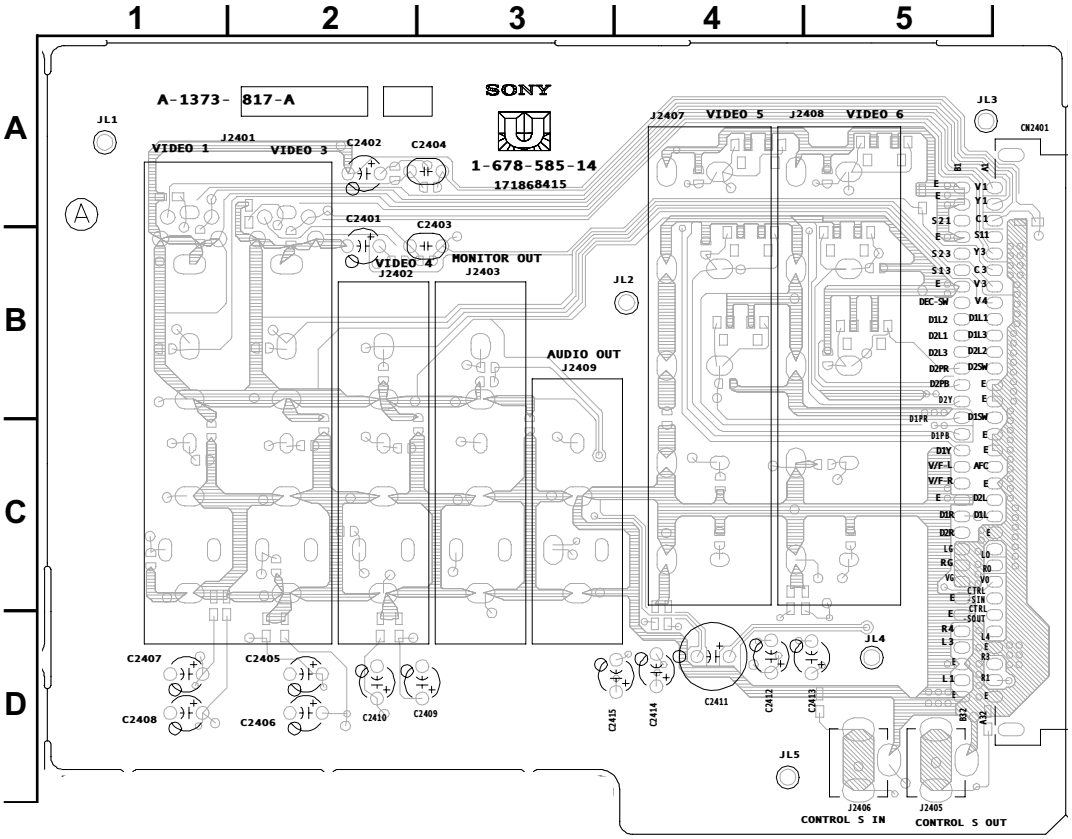
TO B BOARD
CN3205

CN2401 64P :DIN

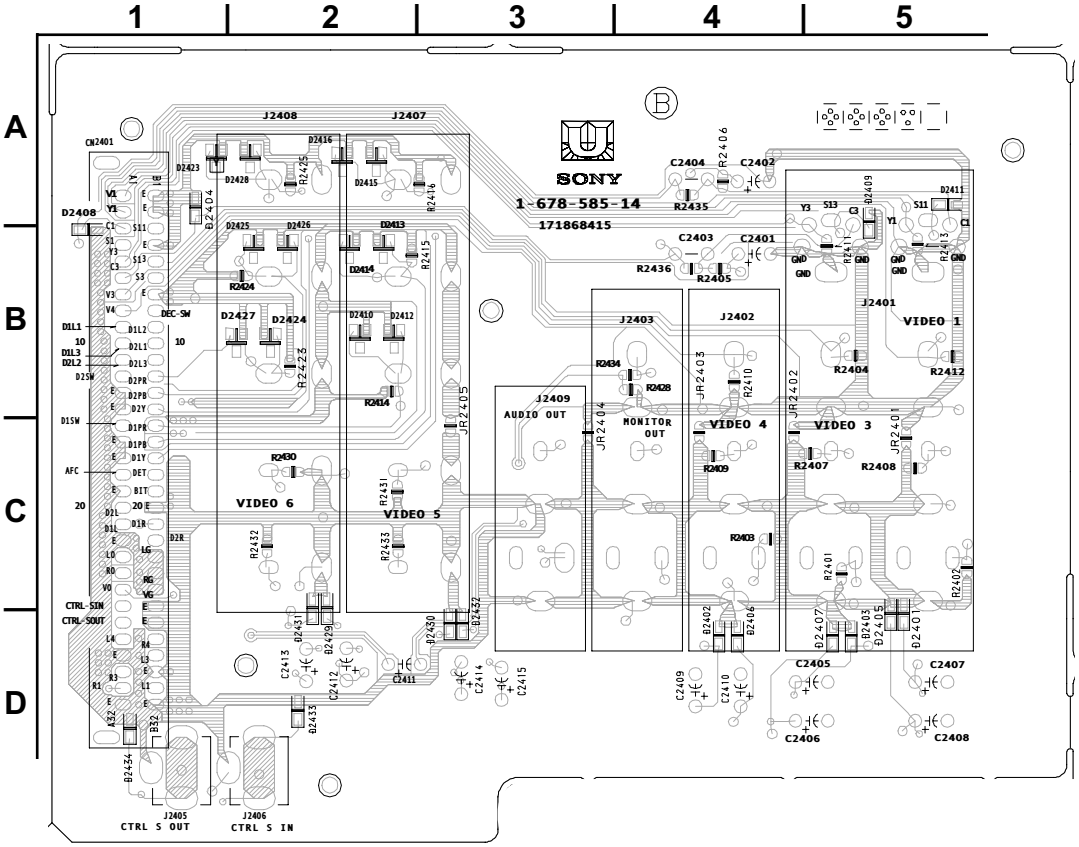
DX1A-919-U

U [VIDEO I/O]

COMPONENT SIDE



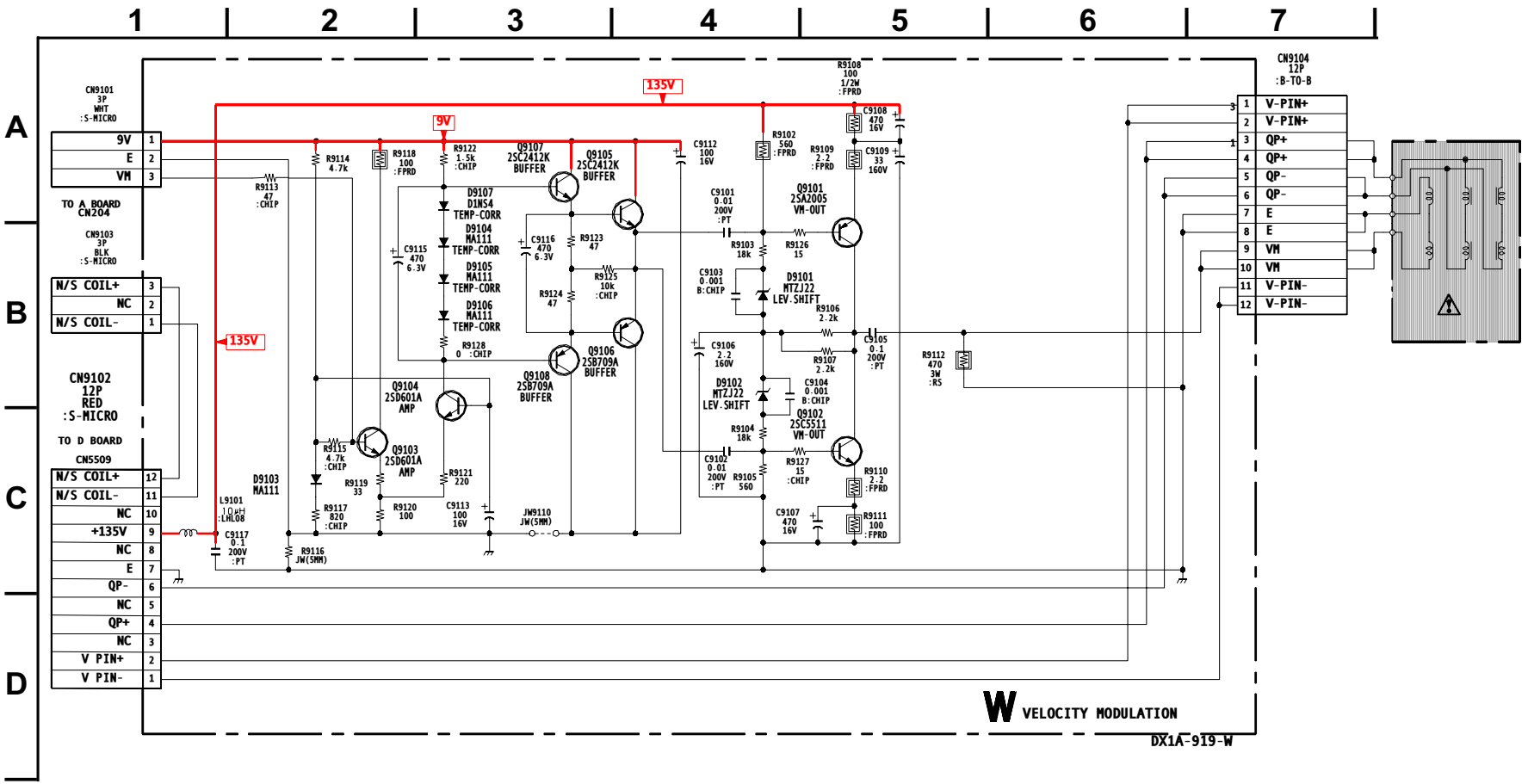
CONDUCTOR SIDE



U BOARD LOCATOR LIST

DIODE	
D2401	D-5
D2402	D-4
D2403	D-5
D2405	D-5
D2406	D-4
D2407	D-5
D2409	A-5
D2410	B-2
D2411	A-5
D2412	B-2
D2413	B-2
D2414	B-2
D2415	A-2
D2416	A-2
D2423	A-1
D2424	B-2
D2425	B-2
D2426	B-2
D2427	B-2
D2428	A-2
D2429	D-2
D2430	D-3
D2431	D-2
D2432	D-3
D2433	D-2
D2434	D-1

W BOARD SCHEMATIC DIAGRAM



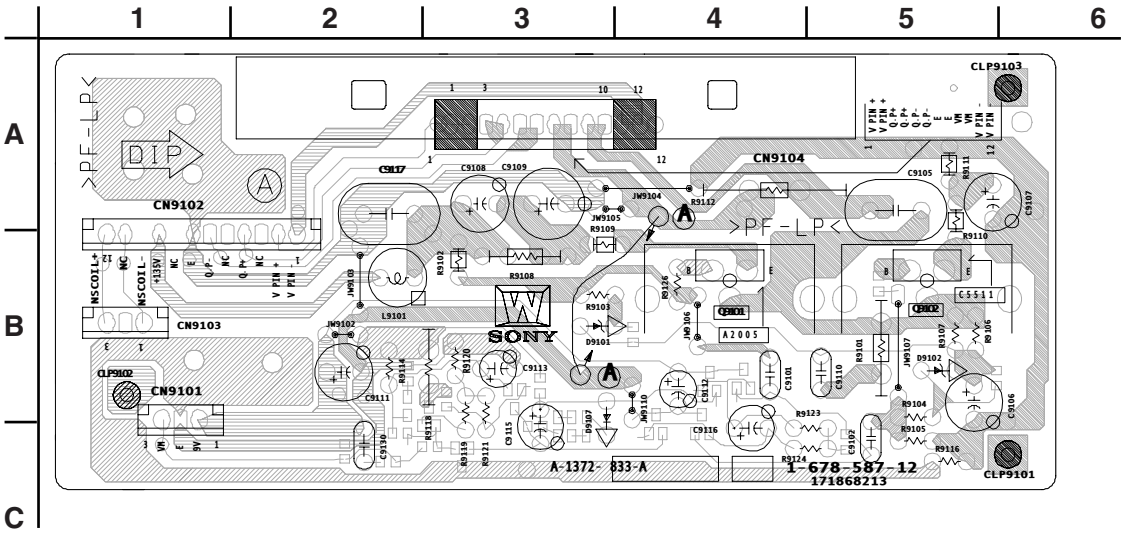
W BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q9101	133.8	67.5	134.3
Q9102	1.3	67.5	0.8
Q9103	1.7	8.2	1.1
Q9104	1.9	4.3	1.2
Q9105	5.8	9.0	5.4
Q9106	4.1	GND	4.7
Q9107	6.5	9.0	5.8
Q9108	4.3	GND	5.0

All voltages are in V.

W [VELOCITY MODULATION]

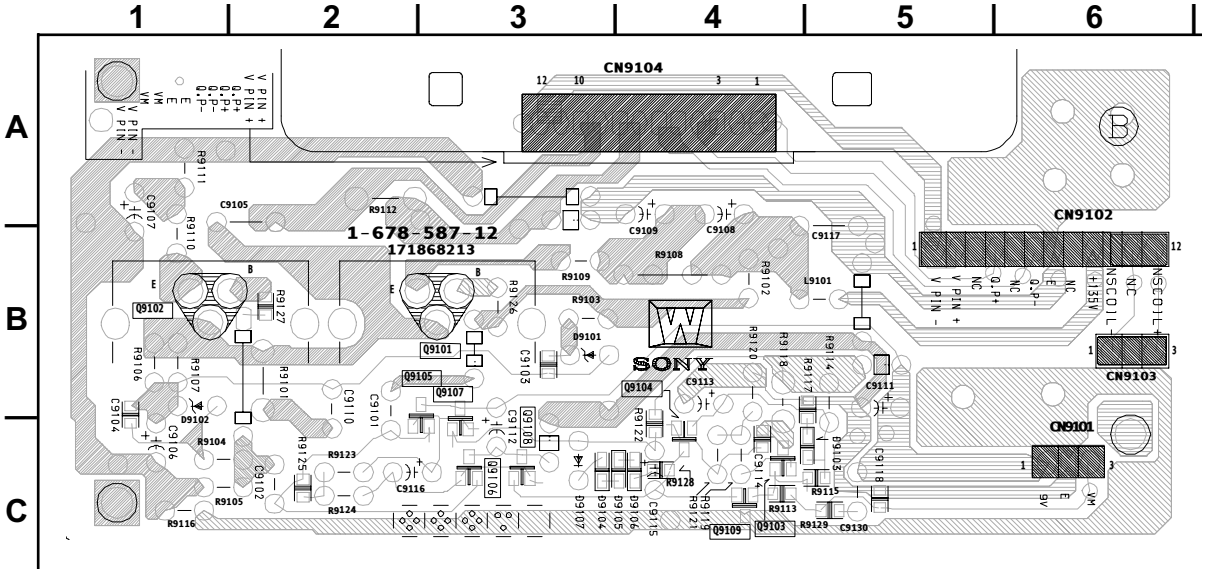
COMPONENT SIDE



W BOARD LOCATOR LIST (COMPONENT SIDE)

DIODE		TRANSISTOR	
D9101	B-4	Q9101	B-4
D9102	B-6	Q9102	B-6
D9107	C-4		

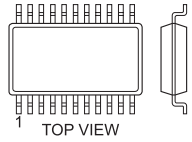
CONDUCTOR SIDE



W BOARD LOCATOR LIST (CONDUCTOR SIDE)

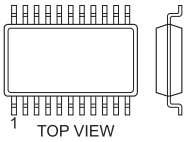
DIODE		D9106	C-3	Q9105	B-2
D9103	B-4	TRANSISTOR		Q9106	C-3
D9104	C-3	Q9103	C-4	Q9107	B-3
D9105	C-3	Q9104	B-4	Q9108	B-3

5-4. SEMICONDUCTORS (1 OF 2)



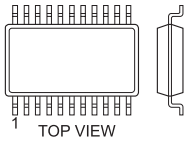
14pin

M52055FP
TLC2932IPW
TLC2933IPWR-12



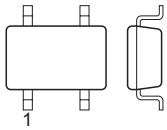
16pin

CXD2085M-T4
SN74LV4053ANSR



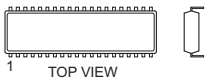
32pin

BH3868AFS-E2



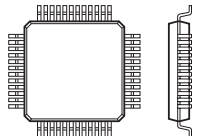
5pin

PST9120NL
PST9145NL
TC7SET08FU(TE85L)



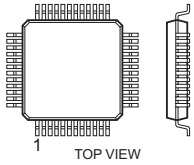
22pin

CXA2026AS



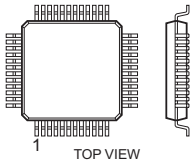
32pin

CXD2073Q-T4



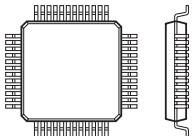
48pin

CXA2103Q
CXA2150Q



64pin

TLC5733AIPM



240pin

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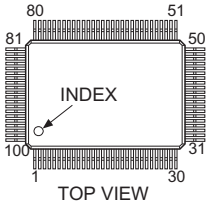

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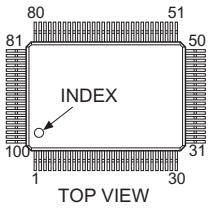
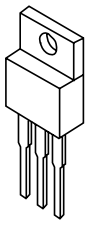


M306V2ME-153FP



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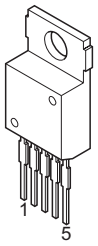
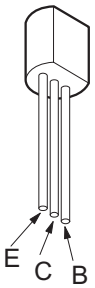
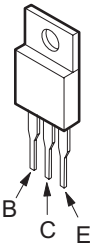


LA6500-FA



2SA1208S-TP
2SA1091O-TPE



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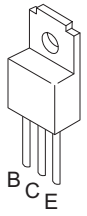
IRFI644-G-LF36
IRFI9630GS



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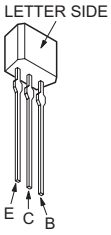

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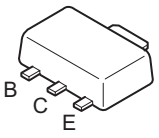

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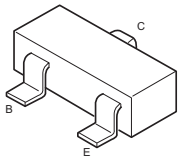

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DTC144EKA-T146
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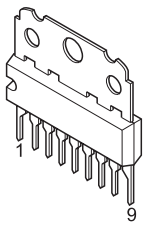
2SB709A-QRS-TX
2SC2412K-T-146-QR
2SD2114KT146



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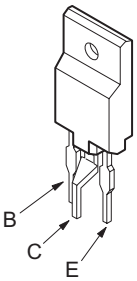

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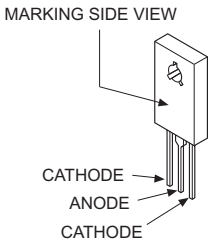
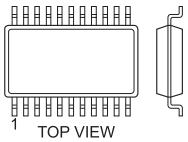


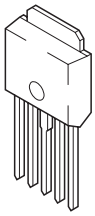
D5LC20U



8pin

NJM2901M-TE2
NJM2903M-TE2
NJM2904M-TE2
NJM4558E(TE2)
TC7WU04FU(TE12R)

SEMICONDUCTORS (2 OF 2)



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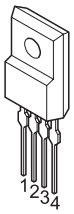

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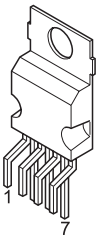
PQ12RF21
PQ30RV21



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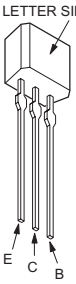

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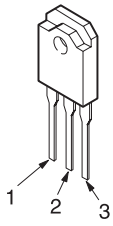

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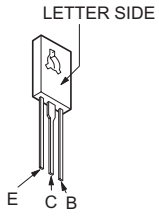

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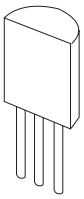

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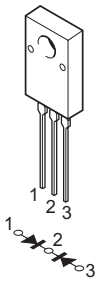

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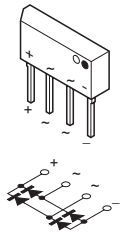

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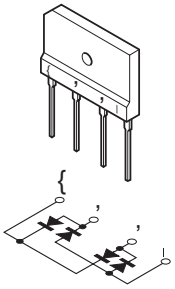

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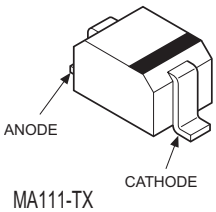

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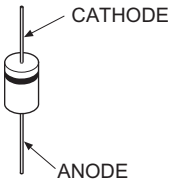
MA113-TX
UDZSTE-1710B
UDZSTE-176.8B
UDZSTE-17-12



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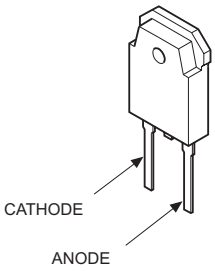
D1NL20U-TR
ERC91-02E



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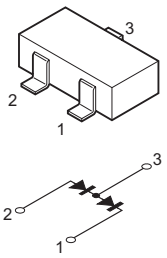

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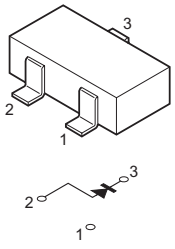

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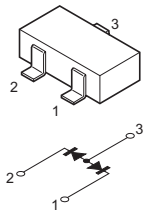

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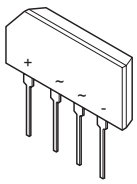

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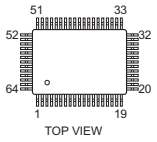

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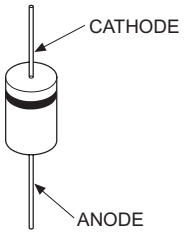

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ERC04-06SE
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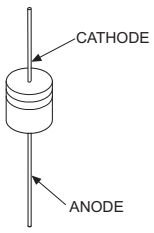
HSS83TD
HZU11B1TRF
RGP02-20EL-6394
MTZJ-77-22B



D1NS4-TA2
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MTZJ-T-77-15B
MTZJ-T-77-33B
MTZJ-T-77-10
MTZJ-T-77-12
MTZJ-T-77-13C
MTZJ-T-77-22
MTZJ-T-77-3.9B
MTZJ-T-77-33C
MTZJ-T-77-4.7B
MTZJ-T-77-5.1B
MTZJ-T-77-7.5B
RD5.6ES-T1B2

SECTION 6: EXPLODED VIEWS

Components not identified by a part number or description are not stocked because they are seldom required for routine service.

The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

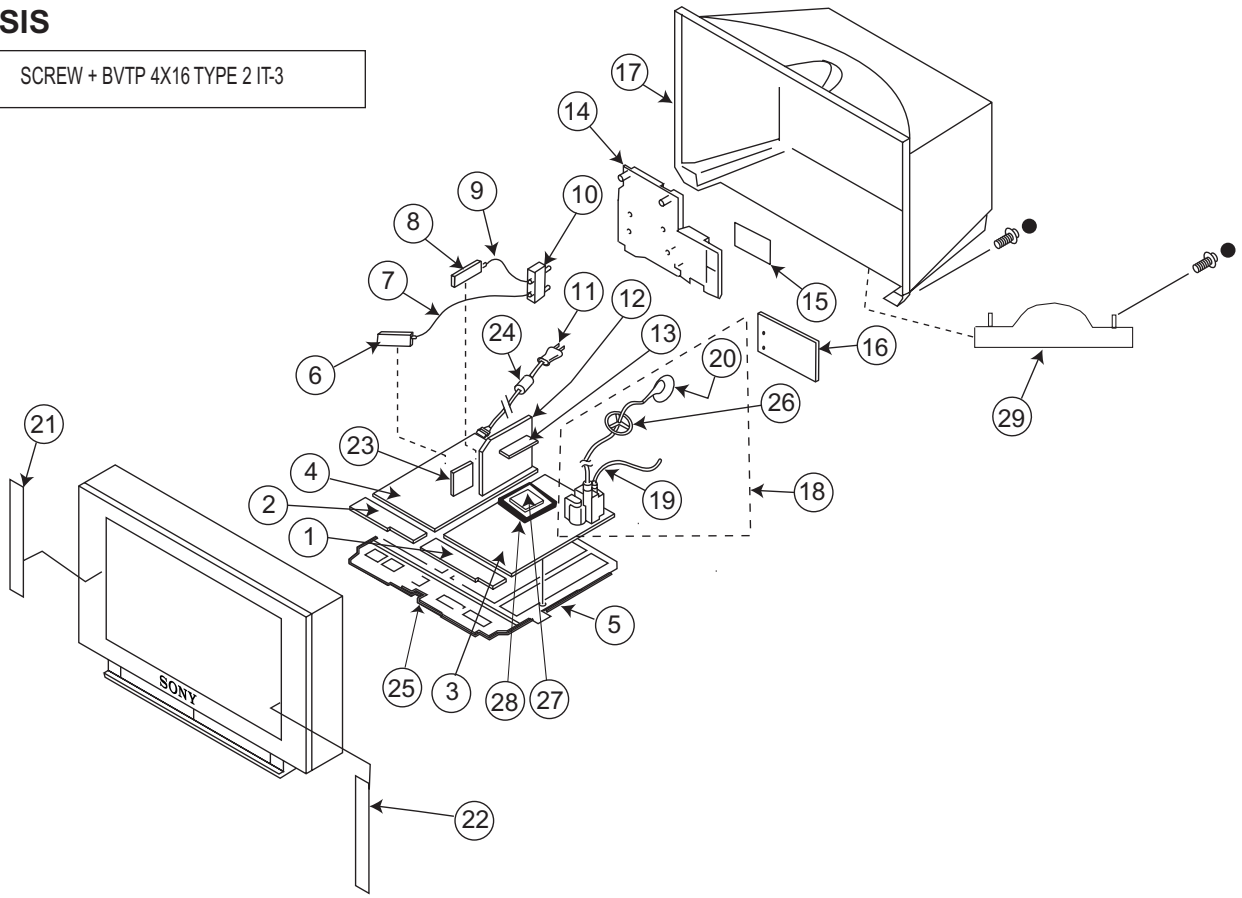
*** Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.**

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

6-1. CHASSIS

● 7-685-663-79 SCREW + BVTP 4X16 TYPE 2 IT-3



	REF. NO.	PART NO.	DESCRIPTION
*	1	A-1377-021-A	HA MOUNTED PC BOARD
*	2	A-1372-904-A	HB (COM) MOUNTED PC BOARD
*	3	A-1348-122-A	D COMPLETE PC BOARD
			The high-voltage leads associated with the FBT on this board are not included and must be ordered separately (See 19-20).
*	4	A-1299-560-A	A COMPLETE PC BOARD
*	5	4-075-828-01	BRACKET, MAIN
	6	8-598-501-30	TUNER, FSS BTF-FA402
*	7	1-555-400-00	CABLE, PIN
	8	8-598-542-20	TUNER, FSS BTF-WA412
*	9	1-557-009-31	CABLE, P-P
⚠	10	1-771-787-11	SWITCH, RF ANTENNA
⚠	11	1-790-316-21	CORD, AC POWER(WITH CONNECTOR)
*	12	A-1136-200-A	B COMPLETE PC BOARD
*	13	A-1136-117-A	BC COMPLETE PC BOARD
*	14	4-075-829-01	BRACKET, U
			The label associated with the U Bracket is not included and must be ordered separately (See 15).

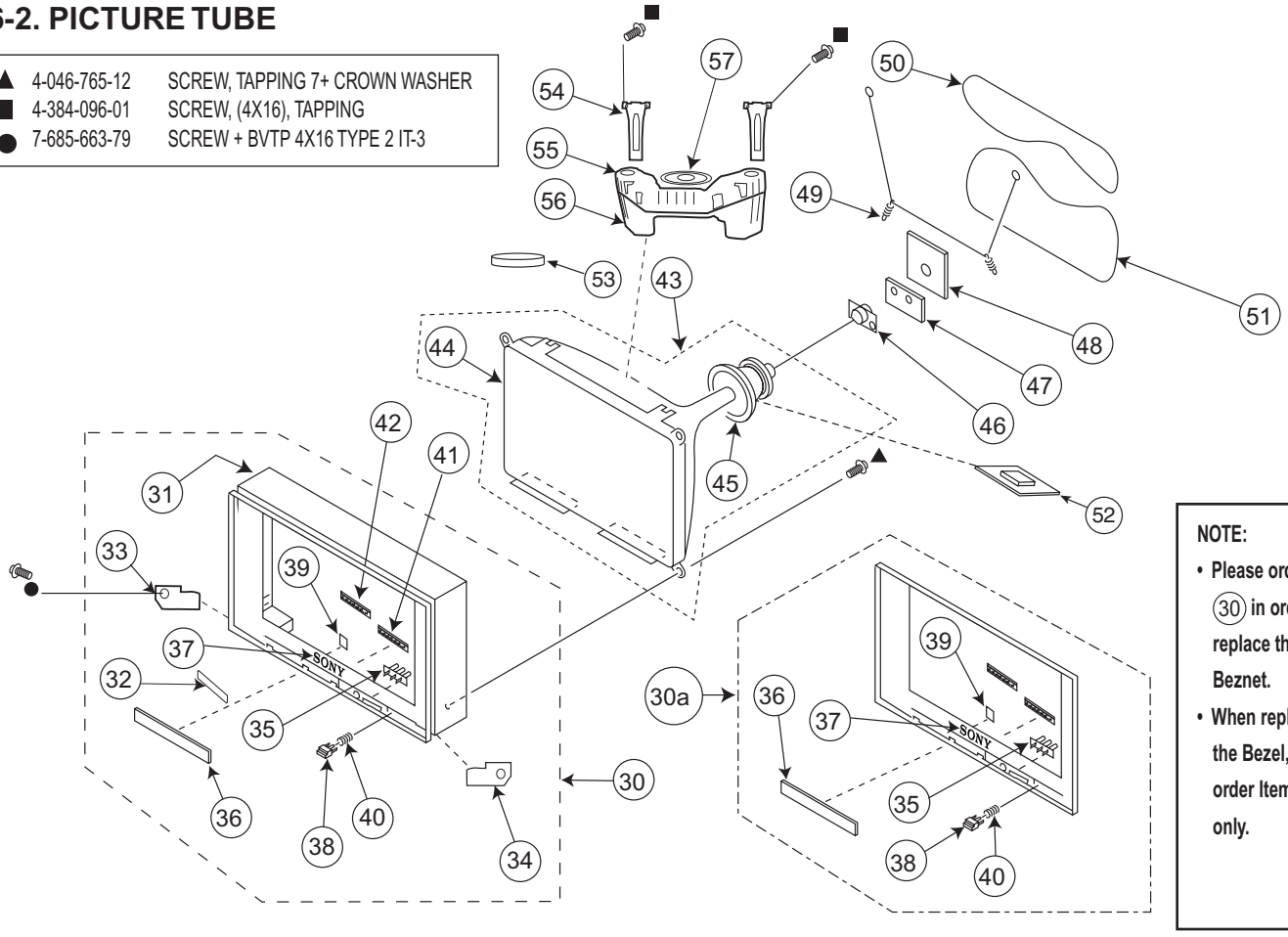
	REF. NO.	PART NO.	DESCRIPTION	[Assembly Includes]
	15	4-077-820-01	LABEL, TERMINAL	
*	16	A-1373-817-A	U (COM) MOUNTED PC BOARD	
	17	4-083-306-01	COVER, REAR	
⚠	18	1-453-350-21	FBT ASSY NX-6000//J1C4	[19-20]
⚠	19	1-900-805-19	FOCUS LEAD	
⚠	20	1-251-715-32	HV CAP ASSY	
	21	1-544-953-11	SPEAKER (LEFT)	
	22	1-544-953-21	SPEAKER (RIGHT)	
*	23	A-1391-048-A	S MOUNTED PC BOARD	
	24	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
*	25	4-083-314-01	BRACKET, H	
	26	4-084-918-01	RING, WISILL	
*	27	A-1333-142-A	DH MOUNTED PC BOARD	
*	28	4-084-013-01	BRACKET, DH	
	29	4-083-308-01	FOOT, RC	

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

6-2. PICTURE TUBE

▲	4-046-765-12	SCREW, TAPPING 7+ CROWN WASHER
■	4-384-096-01	SCREW, (4X16), TAPPING
●	7-685-663-79	SCREW + BVTP 4X16 TYPE 2 IT-3



NOTE:

- **Please order Item (30) in order to replace the entire Beznet.**
- **When replacing only the Bezel, please order Item (30a) only.**

	REF. NO.	PART NO.	DESCRIPTION	[Assembly Includes]
	30	X-4039-427-1	BEZNET ASSY	[31-40]
	30a	X-4039-428-1	BEZEL ASSY	[35-40]
	31	4-083-297-01	CABINET	
	32	4-083-484-01	LABEL, DOOR	
*	33	4-083-304-01	FOOT, CABINET (L)	
*	34	4-083-305-01	FOOT, CABINET (R)	
	35	4-083-299-01	GUIDE, LED	
	36	4-083-298-11	DOOR	
	37	3-704-179-31	EMBLEM (NO.9), SONY	
	38	4-083-300-01	BUTTON, POWER	
*	39	4-084-857-01	CUSHION, DOOR	
	40	4-083-303-01	SPRING, METAL	
	41	4-083-301-01	BUTTON, MULTI	
	42	4-083-302-01	BUTTON, MENU	
⚠	43	8-734-048-06	ITC 42RSN-C1	[44-45]
⚠	44	8-735-095-05	CRT 42RSN	
⚠	45	8-451-525-11	DY Y42RSC-M	
⚠	46	8-453-009-21	NA325-M2 (NECK ASSEMBLY)	

	REF. NO.	PART NO.	DESCRIPTION
*	47	A-1372-833-A	W MOUNTED PC BOARD
*	48	A-1332-075-A	C MOUNTED PC BOARD
	49	4-082-641-01	SPRING, 45MM
⚠	50	1-424-865-11	COIL, DEGAUSSING [TOP]
⚠	51	1-424-865-21	COIL, DEGAUSSING [BOTTOM]
	52	1-424-866-11	COIL, LANDING CORRECTION
	53	4-084-246-01	CUSHION, 20MM X 80MM
	54	X-4039-429-1	HOLDER ASSY, SPEAKER
*	55	4-083-309-01	BOX, SPEAKER (TOP)
*	56	4-083-310-01	BOX, SPEAKER (BOTTOM)
	57	1-544-952-11	SPEAKER

SECTION 7: ELECTRICAL PARTS LIST

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components in this manual identified by the following symbol: ⧓ indicate parts that have been carefully factory-selected to satisfy regulations regarding X-ray radiation for each set.

Should replacement be required for one of these components, replace only with the value originally used.

* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

BC

RESISTORS
- All resistors are in ohms
- F : nonflammable
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When ordering parts by reference number, please include the board name.

BC

REF. NO.	PART NO.	DESCRIPTION	VALUES		
*	A-1136-117-A	BC COMPLETE PC BOARD			
	CAPACITOR				
C3500	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3501	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C3502	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3504	1-163-102-00	CERAMIC CHIP	24pF	5%	50V
C3505	1-163-102-00	CERAMIC CHIP	24pF	5%	50V
C3506	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3507	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3509	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3510	1-163-131-00	CERAMIC CHIP	390pF	5%	50V
C3511	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3512	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3513	1-216-295-91	SHORT			
C3514	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C3515	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3516	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3517	1-126-924-11	ELECT	330µF	20%	6.3V
C3518	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3519	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3520	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3521	1-163-237-11	CERAMIC CHIP	27pF	5%	50V
C3522	1-126-947-11	ELECT	47µF	20%	16V
C3523	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3524	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3525	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3526	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3527	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3528	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3529	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3530	1-126-947-11	ELECT	47µF	20%	16V
C3531	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C3532	1-126-964-11	ELECT	10µF	20%	50V
C3533	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C3534	1-126-960-11	ELECT	1µF	20%	50V
C3535	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C3536	1-126-960-11	ELECT	1µF	20%	50V
C3537	1-126-964-11	ELECT	10µF	20%	50V
C3538	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C3539	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C3541	1-163-106-00	CERAMIC CHIP	36pF	5%	50V
C3542	1-126-964-11	ELECT	10µF	20%	50V
C3543	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C3546	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C3547	1-126-935-11	ELECT	470µF	20%	16V
C3548	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3549	1-126-947-11	ELECT	47µF	20%	16V
C3550	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C3551	1-126-947-11	ELECT	47µF	20%	16V
C3552	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C3553	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C3554	1-126-947-11	ELECT	47µF	20%	16V
C3555	1-126-935-11	ELECT	470µF	20%	16V
C3556	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3557	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C3558	1-126-947-11	ELECT	47µF	20%	16V
C3559	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C3560	1-126-947-11	ELECT	47µF	20%	16V
C3561	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C3562	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C3563	1-126-947-11	ELECT	47µF	20%	16V
C3564	1-126-947-11	ELECT	47µF	20%	16V
C3565	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C3566	1-163-031-91	CERAMIC CHIP	0.01µF		50V
	CONNECTOR				
* CN3500	1-691-632-21	CONNECTOR, BOARD TO BOARD 15P			
	FERRITE BEAD				
FB3500	1-414-234-22	FERRITE	0µH		
FB3501	1-414-234-22	FERRITE	0µH		
FB3502	1-414-234-22	FERRITE	0µH		
FB3503	1-414-234-22	FERRITE	0µH		

REF. NO.	PART NO.	DESCRIPTION	VALUES		
FB3504	1-414-234-22	FERRITE	0µH		
FB3505	1-414-234-22	FERRITE	0µH		
FB3506	1-414-234-22	FERRITE	0µH		
FB3507	1-414-234-22	FERRITE	0µH		
FB3508	1-414-234-22	FERRITE	0µH		
FB3509	1-414-234-22	FERRITE	0µH		
	FILTER				
FL3500	1-239-848-21	FILTER, LOW PASS			
FL3501	1-239-848-21	FILTER, LOW PASS			
FL3502	1-239-848-21	FILTER, LOW PASS			
FL3503	1-239-848-21	FILTER, LOW PASS			
FL3504	1-233-512-21	FERRITE	37µH		
FL3505	1-233-512-21	FERRITE	37µH		
FL3506	1-233-512-21	FERRITE	37µH		
	IC				
IC3500	6-700-188-01	IC IS41C16256-35K			
IC3501	8-759-594-44	IC UPD64082GF-3BA			
IC3502	8-759-641-30	IC NJM2391DL1-33-TEI			
	COIL				
L3500	1-414-265-21	INDUCTOR	4.7µH		
L3501	1-412-058-11	INDUCTOR	10µH		
L3502	1-412-058-11	INDUCTOR	10µH		
L3503	1-412-058-11	INDUCTOR	10µH		
L3504	1-412-058-11	INDUCTOR	10µH		
L3505	1-412-058-11	INDUCTOR	10µH		
	TRANSISTOR				
Q3500	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q3501	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q3502	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q3503	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q3504	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q3505	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q3506	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q3508	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q3509	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q3510	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q3511	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q3512	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q3513	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q3514	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q3515	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q3516	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q3517	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
	RESISTOR				
R3503	1-216-017-91	RES-CHIP	47	5%	1/10W
R3504	1-216-295-91	SHORT			
R3505	1-216-295-91	SHORT			
R3506	1-216-295-91	SHORT			
R3507	1-216-295-91	SHORT			
R3508	1-216-295-91	SHORT			
R3509	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3510	1-216-041-00	RES-CHIP	470	5%	1/10W
R3511	1-216-041-00	RES-CHIP	470	5%	1/10W
R3512	1-216-295-91	SHORT			
R3514	1-216-025-11	RES-CHIP	100	5%	1/10W
R3515	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R3516	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R3517	1-216-025-11	RES-CHIP	100	5%	1/10W
R3518	1-216-025-11	RES-CHIP	100	5%	1/10W
R3519	1-216-295-91	SHORT			
R3520	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R3521	1-216-041-00	RES-CHIP	470	5%	1/10W
R3522	1-216-041-00	RES-CHIP	470	5%	1/10W
R3523	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3524	1-216-089-91	RES-CHIP	47K	5%	1/10W
R3525	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3526	1-216-105-91	RES-CHIP	220K	5%	1/10W
R3527	1-216-033-00	RES-CHIP	220	5%	1/10W
R3528	1-208-776-11	METAL CHIP	560	0.50%	1/10W
R3529	1-208-772-11	METAL CHIP	390	0.50%	1/10W
R3530	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R3531	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3532	1-216-025-11	RES-CHIP	100	5%	1/10W
R3534	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3535	1-216-025-11	RES-CHIP	100	5%	1/10W
R3538	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3539	1-216-043-91	RES-CHIP	560	5%	1/10W
R3540	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3541	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R3542	1-216-043-91	RES-CHIP	560	5%	1/10W
R3543	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3544	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3545	1-216-043-91	RES-CHIP	560	5%	1/10W
R3547	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R3548	1-216-295-91	SHORT			
R3549	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3550	1-208-780-11	METAL CHIP	820	0.50%	1/10W
R3551	1-216-043-91	RES-CHIP	560	5%	1/10W
R3552	1-216-031-00	RES-CHIP	180	5%	1/10W
R3553	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3554	1-216-047-91	RES-CHIP	820	5%	1/10W
R3555	1-216-075-00	RES-CHIP	12K	5%	1/10W
R3556	1-216-085-91	RES-CHIP	33K	5%	1/10W
R3557	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3558	1-216-017-91	RES-CHIP	47	5%	1/10W
R3559	1-216-295-91	SHORT			

BCB

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3560	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3561	1-216-043-91	RES-CHIP	560	5%	1/10W
R3563	1-216-295-91	SHORT			
R3564	1-216-295-91	SHORT			
R3565	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R3566	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3567	1-216-043-91	RES-CHIP	560	5%	1/10W
R3568	1-216-047-91	RES-CHIP	820	5%	1/10W
R3569	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3570	1-216-085-91	RES-CHIP	33K	5%	1/10W
R3571	1-216-075-00	RES-CHIP	12K	5%	1/10W
R3572	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3573	1-216-017-91	RES-CHIP	47	5%	1/10W
R3588	1-216-043-91	RES-CHIP	560	5%	1/10W
R3589	1-216-105-91	RES-CHIP	220K	5%	1/10W
	CRYSTAL				
X3500	1-767-606-11	VIBRATOR, CRYSTAL			

B

*		**A-1136-200-A**	**B COMPLETE PC BOARD**			
		CAPACITOR				
	C3001	1-128-453-21	ELECT CHIP	47µF	20%	6.3V
	C3002	1-128-453-21	ELECT CHIP	47µF	20%	6.3V
	C3003	1-128-453-21	ELECT CHIP	47µF	20%	6.3V
	C3004	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
	C3005	1-164-156-11	CERAMIC CHIP	0.1µF		25V
	C3006	1-124-779-00	ELECT CHIP	10µF	20%	16V
	C3007	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
	C3008	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
	C3009	1-164-227-11	CERAMIC CHIP	0.022µF	10%	25V
	C3010	1-164-156-11	CERAMIC CHIP	0.1µF		25V
	C3011	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
	C3012	1-164-156-11	CERAMIC CHIP	0.1µF		25V
	C3013	1-104-601-11	ELECT CHIP	10µF	20%	10V
	C3014	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
	C3015	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
	C3016	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
	C3017	1-124-779-00	ELECT CHIP	10µF	20%	16V
	C3018	1-164-156-11	CERAMIC CHIP	0.1µF		25V
	C3019	1-164-156-11	CERAMIC CHIP	0.1µF		25V
	C3020	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
	C3021	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
	C3022	1-164-156-11	CERAMIC CHIP	0.1µF		25V
	C3023	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
	C3024	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C3025	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3026	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3027	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3028	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3030	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3031	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3032	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3033	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C3034	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3035	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3036	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3037	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3039	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3040	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3041	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C3043	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3044	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3045	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3046	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3047	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3048	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3049	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3050	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3051	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C3054	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3055	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3056	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3057	1-126-603-11	ELECT CHIP	4.7µF	20%	35V
C3059	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C3060	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3061	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3062	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3063	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3064	1-117-681-11	ELECT CHIP	100µF	20%	16V
C3066	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3067	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3068	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C3069	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3070	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3071	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C3072	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3073	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3074	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3075	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C3076	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3078	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3079	1-125-838-11	CERAMIC CHIP	2.2µF	10%	6.3V

B

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C3080	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3081	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3082	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3083	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C3085	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C3086	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3087	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3088	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3089	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3090	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3091	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3092	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3093	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3094	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3096	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3097	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3098	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3099	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C3113	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3114	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3115	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3116	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3117	1-126-603-11	ELECT CHIP	4.7µF	20%	35V
C3120	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C3127	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3128	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C3129	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3130	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C3131	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3132	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3133	1-125-838-11	CERAMIC CHIP	2.2µF	10%	6.3V
C3134	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3135	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3136	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C3137	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C3138	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3139	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3140	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3141	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C3142	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3172	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3173	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3204	1-126-193-11	ELECT CHIP	1µF	20%	50V
C3205	1-117-681-11	ELECT CHIP	100µF	20%	16V
C3206	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C3208	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C3209	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3210	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C3211	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C3212	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3213	1-117-681-11	ELECT CHIP	100µF	20%	16V
C3215	1-126-401-21	ELECT CHIP	1µF	20%	50V
C3216	1-126-193-11	ELECT CHIP	1µF	20%	50V
C3218	1-126-193-11	ELECT CHIP	1µF	20%	50V
C3219	1-126-193-11	ELECT CHIP	1µF	20%	50V
C3220	1-128-993-21	ELECT CHIP	22µF	20%	10V
C3221	1-117-681-11	ELECT CHIP	100µF	20%	16V
C3222	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3223	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3224	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3225	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3226	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3227	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3229	1-117-681-11	ELECT CHIP	100µF	20%	16V
C3235	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3236	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3237	1-117-681-11	ELECT CHIP	100µF	20%	16V
C3239	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3240	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C3241	1-164-361-11	CERAMIC CHIP	0.047µF		25V
C3242	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3243	1-126-193-11	ELECT CHIP	1µF	20%	50V
C3245	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3246	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3247	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3248	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3249	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3250	1-216-295-91	SHORT			
C3251	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3252	1-216-295-91	SHORT			
C3253	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C3254	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C3255	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3301	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3302	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3303	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C3304	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3305	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3306	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3307	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3308	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3309	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3310	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3311	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3312	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C3313	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3314	1-164-156-11	CERAMIC CHIP	0.1µF		25V

B

REF. NO.	PART NO.	DESCRIPTION	VALUES			REF. NO.	PART NO.	DESCRIPTION	VALUES		
C3315	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3368	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3316	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3369	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3317	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3370	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3318	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3371	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3319	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3372	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3320	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3374	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3321	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3375	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V
C3322	1-126-204-11	ELECT CHIP	47µF	20%	16V	C3376	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3323	1-124-779-00	ELECT CHIP	10µF	20%	16V	C3377	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3324	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3378	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3325	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3379	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3326	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3401	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3327	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3402	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3328	1-124-779-00	ELECT CHIP	10µF	20%	16V	C3403	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3331	1-126-204-11	ELECT CHIP	47µF	20%	16V	C3404	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3332	1-124-779-00	ELECT CHIP	10µF	20%	16V	C3405	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C3333	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3406	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3335	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3407	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3336	1-124-779-00	ELECT CHIP	10µF	20%	16V	C3408	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C3338	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3409	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3339	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3410	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3340	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3411	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3341	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3412	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C3343	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3413	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3344	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3414	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3345	1-126-204-11	ELECT CHIP	47µF	20%	16V	C3415	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3346	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3416	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3347	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V	C3417	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3348	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3418	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3349	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3419	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3350	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3420	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3351	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3421	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3352	1-124-779-00	ELECT CHIP	10µF	20%	16V	C3422	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3353	1-126-204-11	ELECT CHIP	47µF	20%	16V	C3423	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3354	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3424	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3355	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3425	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C3356	1-126-204-11	ELECT CHIP	47µF	20%	16V	C3426	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3357	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3428	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3358	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3429	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3359	1-126-204-11	ELECT CHIP	47µF	20%	16V	C3430	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3360	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3431	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3361	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	C3432	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3362	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V	C3433	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3363	1-126-204-11	ELECT CHIP	47µF	20%	16V	C3434	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3364	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3435	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3365	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3436	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3366	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3437	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3367	1-164-156-11	CERAMIC CHIP	0.1µF		25V	C3438	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V

B

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C3439	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3440	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C3441	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C3442	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3443	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3444	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3445	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3446	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C3447	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3448	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3449	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3450	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3452	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3453	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3454	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3455	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3456	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3457	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3458	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3460	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C3462	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3463	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3464	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3465	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3466	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3467	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3468	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C3469	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3470	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C3473	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3474	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3475	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3476	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3477	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3478	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3479	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3480	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3481	1-117-681-11	ELECT CHIP	100µF	20%	16V
C3482	1-117-681-11	ELECT CHIP	100µF	20%	16V
C3483	1-117-681-11	ELECT CHIP	100µF	20%	16V
C3484	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C3485	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3486	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3487	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3488	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3489	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3490	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3491	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3492	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3493	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3494	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3495	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3496	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3604	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3605	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3606	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3607	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3608	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C3609	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3610	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3611	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3612	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C3613	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C3618	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3619	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3623	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3624	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3625	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C3626	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3627	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3628	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3629	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C3630	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C3635	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3636	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C3637	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3638	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3639	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3640	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C3641	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3642	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3643	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3644	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3652	1-162-974-11	CERAMIC CHIP	0.01µF		50V
C3653	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C3654	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C3655	1-164-816-11	CERAMIC CHIP	220pF	2%	50V
C3656	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C3657	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C3658	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C3659	1-126-204-11	ELECT CHIP	47µF	20%	16V
C3660	1-126-204-11	ELECT CHIP	47µF	20%	16V

	REF. NO.	PART NO.	DESCRIPTION	VALUES
		CONNECTOR		
*	CN3201	1-691-616-21	CONNECTOR, BOARD TO BOARD 15P	
	CN3202	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P	
*	CN3203	1-785-303-11	CONNECTOR, DIN (PLUG) 64	
*	CN3204	1-564-526-11	PLUG,CONNECTOR 11P	
*	CN3205	1-785-304-11	CONNECTOR, DIN (RECEPTACLE) 64	
		DIODE		
	D3001	8-719-978-33	DIODE UDZSTE-176.8B	
	D3002	8-719-978-33	DIODE UDZSTE-176.8B	
	D3003	8-719-978-33	DIODE UDZSTE-176.8B	
	D3004	8-719-978-33	DIODE UDZSTE-176.8B	
	D3005	8-719-978-33	DIODE UDZSTE-176.8B	
	D3006	8-719-978-33	DIODE UDZSTE-176.8B	
	D3007	8-719-978-33	DIODE UDZSTE-176.8B	
	D3089	8-719-800-76	DIODE MA153-TX	
	D3090	8-719-800-76	DIODE MA153-TX	
	D3201	8-719-977-28	DIODE UDZSTE-1710B	
	D3202	8-719-977-28	DIODE UDZSTE-1710B	
	D3204	8-719-977-28	DIODE UDZSTE-1710B	
	D3205	8-719-977-28	DIODE UDZSTE-1710B	
	D3206	8-719-977-28	DIODE UDZSTE-1710B	
	D3209	8-719-914-44	DIODE DAP202K-T-146	
	D3210	8-719-041-97	DIODE MA113-(TX)	
	D3211	8-719-404-50	DIODE MA111-TX	
	D3212	8-719-977-28	DIODE UDZSTE-1710B	
	D3213	8-719-977-28	DIODE UDZSTE-1710B	
	D3214	8-719-977-28	DIODE UDZSTE-1710B	
	D3215	8-719-977-28	DIODE UDZSTE-1710B	
	D3216	8-719-977-28	DIODE UDZSTE-1710B	
	D3217	8-719-977-28	DIODE UDZSTE-1710B	
	D3301	8-719-056-77	DIODE UDZ-TE-17-3.9B	
	D3401	8-719-914-43	DIODE DAN202K-T-146	
	D3402	8-719-914-44	DIODE DAP202K-T-146	
	D3403	8-719-978-33	DIODE UDZSTE-176.8B	
		FERRITE BEAD		
	FB3201	1-414-234-22	FERRITE	0µH
	FB3202	1-414-234-22	FERRITE	0µH
	FB3203	1-216-295-91	SHORT	
	FB3204	1-414-234-22	FERRITE	0µH
	FB3205	1-414-234-22	FERRITE	0µH
	FB3206	1-414-234-22	FERRITE	0µH
	FB3401	1-414-235-22	FERRITE	0µH
	FB3402	1-414-235-22	FERRITE	0µH
	FB3403	1-216-295-91	SHORT	
	FB3601	1-414-235-22	FERRITE	0µH

REF. NO.	PART NO.	DESCRIPTION	VALUES
	FILTER		
FL3001	1-239-848-11	FILTER, LOW PASS	
FL3002	1-239-848-11	FILTER, LOW PASS	
FL3003	1-781-923-11	FILTER, LOW PASS (SMD)	
FL3004	1-239-848-11	FILTER, LOW PASS	
FL3401	1-781-923-21	FILTER, LOW PASS (SMD)	
	IC		
IC3001	8-752-093-84	IC CXA2151Q	
IC3002	8-759-595-97	IC SN74LV4053ANSR	
IC3003	8-752-394-69	IC CXD2073Q-T4	
IC3004	8-759-595-97	IC SN74LV4053ANSR	
IC3048	8-752-089-50	IC CXA2103Q	
IC3089	6-700-149-01	IC M24C04-MN6T(A)	
IC3090	6-800-050-01	IC MB94918RpF-G-137-BND	
IC3091	8-759-349-11	IC PST9145NL	
IC3110	8-752-089-50	IC CXA2103Q	
IC3201	8-752-080-04	IC CXA2069Q	
IC3202	8-759-351-01	IC TEA6422DT	
IC3203	8-759-331-71	IC NJM4558E(TE2)	
IC3301	6-700-134-01	IC NT56V1616A0T-7-T&R	
IC3302	8-749-015-18	IC PQ07VZ012P	
IC3303	8-752-409-78	IC CXD2095AQ	
IC3304	8-759-447-90	IC TLC5733AIPM	
IC3305	8-759-669-75	IC TLC2932IPWR	
IC3306	8-759-669-78	IC TLC2933IPWR-12	
IC3401	8-749-015-18	IC PQ07VZ012P	
IC3402	8-759-675-89	IC TC59S6432CFT-80(YB)	
IC3403	8-759-460-29	IC PST9120NL	
IC3404	8-759-669-75	IC TLC2932IPWR	
IC3405	8-759-485-79	IC TC7SET08FU(TE85R)	
IC3406	8-759-485-79	IC TC7SET08FU(TE85R)	
IC3407	8-759-485-79	IC TC7SET08FU(TE85R)	
IC3408	8-759-672-57	IC CXD9509AQ	
IC3409	8-749-015-18	IC PQ07VZ012P	
IC3410	8-752-367-59	IC CXD2309Q	
IC3411	8-759-082-57	IC TC7W04FU(TE12R)	
IC3412	8-759-082-58	IC TC7W08FU(TE12R)	
IC3413	8-759-595-97	IC SN74LV4053ANSR	
IC3414	8-759-548-56	IC M52055FP	
IC3601	8-752-916-40	IC CXP85840A-039Q	
IC3602	8-752-916-40	IC CXP85840A-039Q	
IC3603	8-752-395-13	IC CXD2085M-T4	
IC3604	8-759-700-07	IC NJM2903M-TE2	
	COIL		
L3001	1-216-295-91	SHORT	
L3002	1-469-555-21	INDUCTOR	10µH
L3003	1-469-555-21	INDUCTOR	10µH

REF. NO.	PART NO.	DESCRIPTION	VALUES
L3004	1-469-555-21	INDUCTOR	10µH
L3005	1-469-555-21	INDUCTOR	10µH
L3049	1-469-555-21	INDUCTOR	10µH
L3050	1-469-555-21	INDUCTOR	10µH
L3051	1-469-555-21	INDUCTOR	10µH
L3089	1-414-233-22	FERRITE	0µH
L3112	1-469-555-21	INDUCTOR	10µH
L3113	1-469-555-21	INDUCTOR	10µH
L3301	1-412-058-11	INDUCTOR	10µH
L3302	1-469-555-21	INDUCTOR	10µH
L3303	1-412-052-21	INDUCTOR	1µH
L3304	1-469-555-21	INDUCTOR	10µH
L3305	1-469-555-21	INDUCTOR	10µH
L3306	1-469-561-21	INDUCTOR	100µH
L3307	1-469-555-21	INDUCTOR	10µH
L3308	1-469-561-21	INDUCTOR	100µH
L3309	1-469-561-21	INDUCTOR	100µH
L3310	1-469-561-21	INDUCTOR	100µH
L3311	1-469-561-21	INDUCTOR	100µH
L3312	1-469-555-21	INDUCTOR	10µH
L3401	1-412-052-21	INDUCTOR	1µH
L3402	1-412-052-21	INDUCTOR	1µH
L3403	1-469-561-21	INDUCTOR	100µH
L3404	1-469-561-21	INDUCTOR	100µH
L3405	1-469-555-21	INDUCTOR	10µH
L3406	1-469-555-21	INDUCTOR	10µH
L3407	1-469-555-21	INDUCTOR	10µH
L3409	1-469-555-21	INDUCTOR	10µH
L3410	1-412-052-21	INDUCTOR	1µH
L3411	1-412-058-11	INDUCTOR	10µH
L3412	1-469-555-21	INDUCTOR	10µH
L3413	1-469-555-21	INDUCTOR	10µH
L3414	1-469-555-21	INDUCTOR	10µH
L3416	1-469-555-21	INDUCTOR	10µH
L3601	1-469-555-21	INDUCTOR	10µH
L3602	1-412-951-11	INDUCTOR	10µH
L3603	1-469-555-21	INDUCTOR	10µH
L3604	1-412-951-11	INDUCTOR	10µH
L3605	1-469-555-21	INDUCTOR	10µH
L3606	1-469-555-21	INDUCTOR	10µH
L3607	1-469-555-21	INDUCTOR	10µH
L3608	1-414-754-11	INDUCTOR	10µH
L3609	1-414-754-11	INDUCTOR	10µH
	TRANSISTOR		
Q3001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3002	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3003	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3006	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3007	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3008	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3009	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3010	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3011	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3014	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3015	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3016	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3017	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3018	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3021	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3022	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3023	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3025	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3026	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3027	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3035	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3036	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3037	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3038	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3039	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3040	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3049	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3051	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3053	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3054	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3056	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3058	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3089	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3090	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3091	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q3101	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3102	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3103	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3104	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3110	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3111	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3112	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3201	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3202	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3203	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3204	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3205	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3206	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3207	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3208	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3209	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	

REF. NO.	PART NO.	DESCRIPTION	VALUES
Q3210	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3211	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q3213	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3214	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3215	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3216	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3217	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3301	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3302	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3303	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3304	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3305	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3401	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3402	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q3403	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3404	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q3405	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3406	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3407	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3408	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3409	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3410	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3411	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3412	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3413	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3414	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3415	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3603	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3604	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3605	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3606	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3609	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3610	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3611	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3612	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3613	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3617	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3618	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3619	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3620	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	

RESISTOR

R3001	1-216-805-11	RES-CHIP	47	5%	1/16W
R3002	1-216-805-11	RES-CHIP	47	5%	1/16W
R3003	1-216-842-11	RES-CHIP	56K	5%	1/16W
R3004	1-216-818-11	RES-CHIP	560	5%	1/16W
R3005	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3006	1-216-817-11	RES-CHIP	470	5%	1/16W
R3007	1-218-686-11	METAL CHIP	560	0.50%	1/16W
R3009	1-218-710-11	METAL CHIP	5.6K	0.50%	1/16W
R3010	1-218-716-11	METAL CHIP	10K	0.50%	1/16W
R3011	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3012	1-216-864-11	SHORT			
R3013	1-216-813-11	RES-CHIP	220	5%	1/16W
R3014	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R3015	1-216-864-11	SHORT			
R3017	1-216-809-11	RES-CHIP	100	5%	1/16W
R3018	1-216-817-11	RES-CHIP	470	5%	1/16W
R3019	1-218-686-11	METAL CHIP	560	0.50%	1/16W
R3020	1-216-809-11	RES-CHIP	100	5%	1/16W
R3021	1-216-809-11	RES-CHIP	100	5%	1/16W
R3022	1-216-809-11	RES-CHIP	100	5%	1/16W
R3023	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3024	1-216-809-11	RES-CHIP	100	5%	1/16W
R3025	1-216-809-11	RES-CHIP	100	5%	1/16W
R3026	1-216-035-00	RES-CHIP	270	5%	1/10W
R3027	1-218-684-11	METAL CHIP	470	0.50%	1/16W
R3028	1-218-688-11	METAL CHIP	680	0.50%	1/16W
R3029	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
R3030	1-216-864-11	SHORT			
R3035	1-216-809-11	RES-CHIP	100	5%	1/16W
R3036	1-216-809-11	RES-CHIP	100	5%	1/16W
R3037	1-216-809-11	RES-CHIP	100	5%	1/16W
R3038	1-218-686-11	METAL CHIP	560	0.50%	1/16W
R3039	1-218-686-11	METAL CHIP	560	0.50%	1/16W
R3040	1-218-686-11	METAL CHIP	560	0.50%	1/16W
R3042	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3043	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3044	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3045	1-216-817-11	RES-CHIP	470	5%	1/16W
R3046	1-216-817-11	RES-CHIP	470	5%	1/16W
R3047	1-216-809-11	RES-CHIP	100	5%	1/16W
R3048	1-216-809-11	RES-CHIP	100	5%	1/16W
R3049	1-216-809-11	RES-CHIP	100	5%	1/16W
R3050	1-216-809-11	RES-CHIP	100	5%	1/16W
R3051	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3052	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3053	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3056	1-216-817-11	RES-CHIP	470	5%	1/16W
R3057	1-216-817-11	RES-CHIP	470	5%	1/16W
R3058	1-216-835-11	RES-CHIP	15K	5%	1/16W
R3059	1-216-817-11	RES-CHIP	470	5%	1/16W
R3060	1-216-809-11	RES-CHIP	100	5%	1/16W
R3061	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3062	1-218-697-11	METAL CHIP	1.6K	0.50%	1/16W
R3063	1-218-716-11	METAL CHIP	10K	0.50%	1/16W
R3064	1-218-696-11	METAL CHIP	1.5K	0.50%	1/16W
R3066	1-216-809-11	RES-CHIP	100	5%	1/16W

B

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3067	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3068	1-216-809-11	RES-CHIP	100	5%	1/16W
R3071	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3072	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3073	1-216-805-11	RES-CHIP	47	5%	1/16W
R3074	1-216-805-11	RES-CHIP	47	5%	1/16W
R3075	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3076	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3077	1-216-809-11	RES-CHIP	100	5%	1/16W
R3078	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R3079	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3080	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3081	1-216-809-11	RES-CHIP	100	5%	1/16W
R3082	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3083	1-216-864-11	SHORT			
R3084	1-216-864-11	SHORT			
R3085	1-216-864-11	SHORT			
R3086	1-216-864-11	SHORT			
R3087	1-216-864-11	SHORT			
R3088	1-216-864-11	SHORT			
R3089	1-216-864-11	SHORT			
R3090	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R3091	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3092	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3093	1-216-809-11	RES-CHIP	100	5%	1/16W
R3094	1-216-809-11	RES-CHIP	100	5%	1/16W
R3095	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3096	1-216-817-11	RES-CHIP	470	5%	1/16W
R3097	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3098	1-216-805-11	RES-CHIP	47	5%	1/16W
R3099	1-216-805-11	RES-CHIP	47	5%	1/16W
R3100	1-216-809-11	RES-CHIP	100	5%	1/16W
R3101	1-216-809-11	RES-CHIP	100	5%	1/16W
R3102	1-216-809-11	RES-CHIP	100	5%	1/16W
R3103	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3104	1-216-809-11	RES-CHIP	100	5%	1/16W
R3105	1-216-809-11	RES-CHIP	100	5%	1/16W
R3106	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3107	1-216-864-11	SHORT			
R3108	1-216-817-11	RES-CHIP	470	5%	1/16W
R3121	1-216-809-11	RES-CHIP	100	5%	1/16W
R3122	1-216-809-11	RES-CHIP	100	5%	1/16W
R3123	1-218-696-11	METAL CHIP	1.5K	0.50%	1/16W
R3124	1-218-696-11	METAL CHIP	1.5K	0.50%	1/16W
R3125	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R3126	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R3127	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3128	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3129	1-216-835-11	RES-CHIP	15K	5%	1/16W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3130	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3131	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3132	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3133	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3134	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3135	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3136	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3137	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3138	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3139	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3140	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3141	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3142	1-216-805-11	RES-CHIP	47	5%	1/16W
R3143	1-216-805-11	RES-CHIP	47	5%	1/16W
R3144	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3145	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3146	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R3147	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3151	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3152	1-216-818-11	RES-CHIP	560	5%	1/16W
R3154	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R3155	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3156	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3157	1-216-817-11	RES-CHIP	470	5%	1/16W
R3158	1-216-817-11	RES-CHIP	470	5%	1/16W
R3159	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3160	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3161	1-216-809-11	RES-CHIP	100	5%	1/16W
R3162	1-216-815-11	RES-CHIP	330	5%	1/16W
R3163	1-218-710-11	METAL CHIP	5.6K	0.50%	1/16W
R3164	1-218-710-11	METAL CHIP	5.6K	0.50%	1/16W
R3165	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R3166	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R3180	1-218-673-11	METAL CHIP	160	0.50%	1/16W
R3181	1-218-673-11	METAL CHIP	160	0.50%	1/16W
R3182	1-218-673-11	METAL CHIP	160	0.50%	1/16W
R3183	1-216-809-11	RES-CHIP	100	5%	1/16W
R3184	1-216-809-11	RES-CHIP	100	5%	1/16W
R3185	1-216-809-11	RES-CHIP	100	5%	1/16W
R3186	1-218-674-11	METAL CHIP	180	0.50%	1/16W
R3187	1-218-674-11	METAL CHIP	180	0.50%	1/16W
R3188	1-218-674-11	METAL CHIP	180	0.50%	1/16W
R3190	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3191	1-218-694-11	METAL CHIP	1.2K	0.50%	1/16W
R3192	1-216-814-11	RES-CHIP	270	5%	1/16W
R3193	1-218-698-11	METAL CHIP	1.8K	0.50%	1/16W
R3194	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3195	1-216-816-11	RES-CHIP	390	5%	1/16W

B

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3196	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3197	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3198	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3201	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3202	1-216-809-11	RES-CHIP	100	5%	1/16W
R3203	1-216-809-11	RES-CHIP	100	5%	1/16W
R3204	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3205	1-216-809-11	RES-CHIP	100	5%	1/16W
R3207	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3208	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3209	1-216-809-11	RES-CHIP	100	5%	1/16W
R3210	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3211	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3212	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3213	1-216-809-11	RES-CHIP	100	5%	1/16W
R3215	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3216	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3217	1-216-809-11	RES-CHIP	100	5%	1/16W
R3218	1-216-809-11	RES-CHIP	100	5%	1/16W
R3219	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3220	1-216-809-11	RES-CHIP	100	5%	1/16W
R3221	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3222	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3223	1-216-809-11	RES-CHIP	100	5%	1/16W
R3224	1-216-815-11	RES-CHIP	330	5%	1/16W
R3226	1-216-809-11	RES-CHIP	100	5%	1/16W
R3227	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3228	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3229	1-216-809-11	RES-CHIP	100	5%	1/16W
R3230	1-216-809-11	RES-CHIP	100	5%	1/16W
R3231	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3232	1-216-809-11	RES-CHIP	100	5%	1/16W
R3233	1-216-809-11	RES-CHIP	100	5%	1/16W
R3234	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3235	1-216-809-11	RES-CHIP	100	5%	1/16W
R3236	1-216-809-11	RES-CHIP	100	5%	1/16W
R3240	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3241	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3242	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3244	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3246	1-216-809-11	RES-CHIP	100	5%	1/16W
R3247	1-216-809-11	RES-CHIP	100	5%	1/16W
R3248	1-216-809-11	RES-CHIP	100	5%	1/16W
R3249	1-216-809-11	RES-CHIP	100	5%	1/16W
R3250	1-216-809-11	RES-CHIP	100	5%	1/16W
R3254	1-216-809-11	RES-CHIP	100	5%	1/16W
R3255	1-216-809-11	RES-CHIP	100	5%	1/16W
R3256	1-216-809-11	RES-CHIP	100	5%	1/16W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3257	1-216-809-11	RES-CHIP	100	5%	1/16W
R3258	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3259	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3260	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3261	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3262	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3263	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3264	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3265	1-216-857-11	RES-CHIP	1M	5%	1/16W
R3266	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3267	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3268	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3269	1-216-809-11	RES-CHIP	100	5%	1/16W
R3270	1-249-382-11	CARBON	1.2	5%	1/4W
R3272	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3273	1-216-819-11	RES-CHIP	680	5%	1/16W
R3275	1-216-819-11	RES-CHIP	680	5%	1/16W
R3276	1-216-819-11	RES-CHIP	680	5%	1/16W
R3277	1-216-819-11	RES-CHIP	680	5%	1/16W
R3279	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3280	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3281	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3282	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3284	1-216-864-11	SHORT			
R3285	1-216-817-11	RES-CHIP	470	5%	1/16W
R3286	1-218-716-11	METAL CHIP	10K	0.50%	1/16W
R3287	1-216-817-11	RES-CHIP	470	5%	1/16W
R3288	1-218-686-11	METAL CHIP	560	0.50%	1/16W
R3289	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3290	1-216-809-11	RES-CHIP	100	5%	1/16W
R3291	1-216-842-11	RES-CHIP	56K	5%	1/16W
R3292	1-216-857-11	RES-CHIP	1M	5%	1/16W
R3293	1-216-803-11	RES-CHIP	33	5%	1/16W
R3294	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3296	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3297	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3298	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3299	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3300	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3301	1-216-809-11	RES-CHIP	100	5%	1/16W
R3302	1-218-684-11	METAL CHIP	470	0.50%	1/16W
R3303	1-218-712-11	METAL CHIP	6.8K	0.50%	1/16W
R3304	1-218-692-11	METAL CHIP	1K	0.50%	1/16W
R3305	1-216-809-11	RES-CHIP	100	5%	1/16W
R3306	1-216-809-11	RES-CHIP	100	5%	1/16W
R3307	1-216-864-11	SHORT			
R3308	1-216-864-11	SHORT			
R3309	1-211-987-11	METAL CHIP	56	0.50%	1/16W

B

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3310	1-211-987-11	METAL CHIP	56	0.50%	1/16W
R3311	1-211-987-11	METAL CHIP	56	0.50%	1/16W
R3312	1-211-987-11	METAL CHIP	56	0.50%	1/16W
R3313	1-216-835-11	RES-CHIP	15K	5%	1/16W
R3314	1-211-990-11	METAL CHIP	75	0.50%	1/16W
R3315	1-216-835-11	RES-CHIP	15K	5%	1/16W
R3316	1-211-989-11	METAL CHIP	68	0.50%	1/16W
R3317	1-211-989-11	METAL CHIP	68	0.50%	1/16W
R3318	1-211-990-11	METAL CHIP	75	0.50%	1/16W
R3319	1-211-987-11	METAL CHIP	56	0.50%	1/16W
R3320	1-211-987-11	METAL CHIP	56	0.50%	1/16W
R3321	1-211-987-11	METAL CHIP	56	0.50%	1/16W
R3322	1-211-987-11	METAL CHIP	56	0.50%	1/16W
R3323	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3324	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3325	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3326	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3327	1-216-835-11	RES-CHIP	15K	5%	1/16W
R3328	1-216-864-11	SHORT			
R3329	1-216-815-11	RES-CHIP	330	5%	1/16W
R3330	1-216-815-11	RES-CHIP	330	5%	1/16W
R3331	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3332	1-218-272-11	RES-CHIP	5.1K	5%	1/16W
R3333	1-216-864-11	SHORT			
R3334	1-216-809-11	RES-CHIP	100	5%	1/16W
R3335	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3337	1-216-820-11	RES-CHIP	820	5%	1/16W
R3338	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3339	1-216-855-11	RES-CHIP	680K	5%	1/16W
R3340	1-216-855-11	RES-CHIP	680K	5%	1/16W
R3341	1-216-813-11	RES-CHIP	220	5%	1/16W
R3342	1-220-158-11	RES-CHIP	3.6K	5%	1/16W
R3343	1-216-809-11	RES-CHIP	100	5%	1/16W
R3344	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3345	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
R3346	1-216-809-11	RES-CHIP	100	5%	1/16W
R3347	1-216-815-11	RES-CHIP	330	5%	1/16W
R3348	1-216-864-11	SHORT			
R3349	1-218-687-11	METAL CHIP	620	0.50%	1/16W
R3350	1-216-814-11	RES-CHIP	270	5%	1/16W
R3351	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3352	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3353	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3354	1-216-813-11	RES-CHIP	220	5%	1/16W
R3355	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3356	1-216-864-11	SHORT			
R3357	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R3358	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R3359	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R3360	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3361	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3364	1-216-864-11	SHORT			
R3366	1-216-864-11	SHORT			
R3367	1-216-803-11	RES-CHIP	33	5%	1/16W
R3369	1-216-864-11	SHORT			
R3371	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R3372	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R3373	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R3382	1-216-864-11	SHORT			
R3401	1-218-694-11	METAL CHIP	1.2K	0.50%	1/16W
R3403	1-218-692-11	METAL CHIP	1K	0.50%	1/16W
R3404	1-216-864-11	SHORT			
R3405	1-216-864-11	SHORT			
R3410	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3421	1-216-295-91	SHORT			
R3422	1-216-295-91	SHORT			
R3423	1-216-813-11	RES-CHIP	220	5%	1/16W
R3429	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R3432	1-216-815-11	RES-CHIP	330	5%	1/16W
R3434	1-216-809-11	RES-CHIP	100	5%	1/16W
R3445	1-216-864-11	SHORT			
R3446	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3447	1-216-819-11	RES-CHIP	680	5%	1/16W
R3448	1-216-855-11	RES-CHIP	680K	5%	1/16W
R3452	1-216-295-91	SHORT			
R3454	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3460	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3461	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3464	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3465	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3467	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3470	1-216-809-11	RES-CHIP	100	5%	1/16W
R3471	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3472	1-216-801-11	RES-CHIP	22	5%	1/16W
R3475	1-216-809-11	RES-CHIP	100	5%	1/16W
R3476	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3477	1-218-701-11	METAL CHIP	2.4K	0.50%	1/16W
R3478	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3483	1-218-701-11	METAL CHIP	2.4K	0.50%	1/16W
R3484	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3485	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3486	1-216-801-11	RES-CHIP	22	5%	1/16W
R3489	1-216-864-11	SHORT			
R3490	1-216-864-11	SHORT			
R3491	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3492	1-216-057-00	RES-CHIP	2.2K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3493	1-218-701-11	METAL CHIP	2.4K	0.50%	1/16W
R3495	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3496	1-216-801-11	RES-CHIP	22	5%	1/16W
R3497	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3498	1-216-818-11	RES-CHIP	560	5%	1/16W
R3499	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3602	1-216-809-11	RES-CHIP	100	5%	1/16W
R3606	1-216-864-11	SHORT			
R3609	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3610	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3611	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3612	1-216-857-11	RES-CHIP	1M	5%	1/16W
R3613	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3614	1-216-813-11	RES-CHIP	220	5%	1/16W
R3615	1-216-809-11	RES-CHIP	100	5%	1/16W
R3616	1-216-805-11	RES-CHIP	47	5%	1/16W
R3617	1-216-805-11	RES-CHIP	47	5%	1/16W
R3618	1-216-817-11	RES-CHIP	470	5%	1/16W
R3619	1-216-809-11	RES-CHIP	100	5%	1/16W
R3620	1-216-813-11	RES-CHIP	220	5%	1/16W
R3621	1-216-813-11	RES-CHIP	220	5%	1/16W
R3622	1-216-813-11	RES-CHIP	220	5%	1/16W
R3623	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3624	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3625	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3626	1-216-815-11	RES-CHIP	330	5%	1/16W
R3627	1-216-815-11	RES-CHIP	330	5%	1/16W
R3628	1-216-815-11	RES-CHIP	330	5%	1/16W
R3630	1-216-809-11	RES-CHIP	100	5%	1/16W
R3639	1-216-864-11	SHORT			
R3640	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3641	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3642	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3644	1-216-857-11	RES-CHIP	1M	5%	1/16W
R3645	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3646	1-216-813-11	RES-CHIP	220	5%	1/16W
R3647	1-216-809-11	RES-CHIP	100	5%	1/16W
R3648	1-216-805-11	RES-CHIP	47	5%	1/16W
R3649	1-216-805-11	RES-CHIP	47	5%	1/16W
R3650	1-216-817-11	RES-CHIP	470	5%	1/16W
R3651	1-216-809-11	RES-CHIP	100	5%	1/16W
R3652	1-216-813-11	RES-CHIP	220	5%	1/16W
R3653	1-216-813-11	RES-CHIP	220	5%	1/16W
R3654	1-216-813-11	RES-CHIP	220	5%	1/16W
R3655	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3656	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3657	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3658	1-216-815-11	RES-CHIP	330	5%	1/16W
R3659	1-216-815-11	RES-CHIP	330	5%	1/16W
R3660	1-216-815-11	RES-CHIP	330	5%	1/16W
R3661	1-216-809-11	RES-CHIP	100	5%	1/16W
R3662	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3663	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3664	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3665	1-216-817-11	RES-CHIP	470	5%	1/16W
R3666	1-216-809-11	RES-CHIP	100	5%	1/16W
R3667	1-216-839-11	RES-CHIP	33K	5%	1/16W
R3668	1-216-797-11	RES-CHIP	10	5%	1/16W
R3669	1-216-809-11	RES-CHIP	100	5%	1/16W
R3672	1-216-864-11	SHORT			
R3673	1-216-809-11	RES-CHIP	100	5%	1/16W
R3674	1-216-813-11	RES-CHIP	220	5%	1/16W
R3675	1-216-813-11	RES-CHIP	220	5%	1/16W
R3676	1-216-809-11	RES-CHIP	100	5%	1/16W
R3677	1-216-809-11	RES-CHIP	100	5%	1/16W
R3678	1-216-809-11	RES-CHIP	100	5%	1/16W
R3679	1-216-809-11	RES-CHIP	100	5%	1/16W
R3680	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3681	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3682	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3683	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3684	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3685	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3686	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3687	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3688	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3689	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3690	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3691	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3692	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3693	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3694	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3695	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3696	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3697	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3698	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3699	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3800	1-216-864-11	SHORT			
R3802	1-208-762-11	METAL CHIP	150	0.50%	1/10W
R3803	1-208-762-11	METAL CHIP	150	0.50%	1/10W
R3804	1-208-762-11	METAL CHIP	150	0.50%	1/10W
R3805	1-208-762-11	METAL CHIP	150	0.50%	1/10W
R3806	1-218-662-11	METAL CHIP	56	0.50%	1/16W
R3807	1-208-754-11	METAL CHIP	68	0.50%	1/10W
R3808	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3809	1-208-755-11	METAL CHIP	75	0.50%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3810	1-208-758-11	METAL CHIP	100	0.50%	1/10W
R3811	1-216-809-11	RES-CHIP	100	5%	1/16W
R3812	1-216-809-11	RES-CHIP	100	5%	1/16W
R3813	1-216-809-11	RES-CHIP	100	5%	1/16W
R3814	1-211-969-11	METAL CHIP	10	0.50%	1/16W
R3815	1-211-973-11	METAL CHIP	15	0.50%	1/16W
R3816	1-211-977-11	METAL CHIP	22	0.50%	1/16W
R3817	1-211-977-11	METAL CHIP	22	0.50%	1/16W
R3820	1-218-684-11	METAL CHIP	470	0.50%	1/16W
R3821	1-218-684-11	METAL CHIP	470	0.50%	1/16W
R3822	1-218-684-11	METAL CHIP	470	0.50%	1/16W
R3823	1-216-826-11	RES-CHIP	2.7K	5%	1/16W
R3824	1-216-826-11	RES-CHIP	2.7K	5%	1/16W
R3825	1-216-826-11	RES-CHIP	2.7K	5%	1/16W
R3826	1-216-809-11	RES-CHIP	100	5%	1/16W
R3828	1-218-684-11	METAL CHIP	470	0.50%	1/16W
R3829	1-218-684-11	METAL CHIP	470	0.50%	1/16W
R3830	1-218-684-11	METAL CHIP	470	0.50%	1/16W
R3831	1-216-864-11	SHORT			
R3832	1-216-864-11	SHORT			
R3833	1-216-864-11	SHORT			
R3840	1-216-807-11	RES-CHIP	68	5%	1/16W
R3843	1-218-694-11	METAL CHIP	1.2K	0.50%	1/16W
R3844	1-218-712-11	METAL CHIP	6.8K	0.50%	1/16W
R3845	1-218-692-11	METAL CHIP	1K	0.50%	1/16W
R3846	1-216-801-11	RES-CHIP	22	5%	1/16W
R3847	1-216-801-11	RES-CHIP	22	5%	1/16W
R3848	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3849	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R3850	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R3851	1-216-809-11	RES-CHIP	100	5%	1/16W
R3852	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R3854	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3857	1-216-809-11	RES-CHIP	100	5%	1/16W
R3858	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
R3862	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3863	1-218-700-11	METAL CHIP	2.2K	0.50%	1/16W
R3864	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3865	1-216-809-11	RES-CHIP	100	5%	1/16W
R3866	1-414-234-22	FERRITE	0µH		
R3867	1-414-234-22	FERRITE	0µH		
R3868	1-414-234-22	FERRITE	0µH		
R3869	1-218-719-11	METAL CHIP	13K	0.50%	1/16W
R3870	1-218-719-11	METAL CHIP	13K	0.50%	1/16W
R3871	1-218-719-11	METAL CHIP	13K	0.50%	1/16W
R3872	1-211-990-11	METAL CHIP	75	0.50%	1/16W
R3873	1-211-990-11	METAL CHIP	75	0.50%	1/16W
R3874	1-211-990-11	METAL CHIP	75	0.50%	1/16W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3876	1-208-762-11	METAL CHIP	150	0.50%	1/10W
R3901	1-216-035-00	RES-CHIP	270	5%	1/10W
R3902	1-216-035-00	RES-CHIP	270	5%	1/10W
R3903	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3904	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3905	1-216-809-11	RES-CHIP	100	5%	1/16W
R3906	1-216-809-11	RES-CHIP	100	5%	1/16W
R3907	1-216-809-11	RES-CHIP	100	5%	1/16W
R3908	1-216-809-11	RES-CHIP	100	5%	1/16W
R3909	1-216-809-11	RES-CHIP	100	5%	1/16W
R3910	1-216-809-11	RES-CHIP	100	5%	1/16W
R3914	1-216-864-11	SHORT			
R3915	1-211-969-11	METAL CHIP	10	0.50%	1/16W
R3916	1-211-969-11	METAL CHIP	10	0.50%	1/16W
R3917	1-211-969-11	METAL CHIP	10	0.50%	1/16W
R3924	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3925	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3926	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3933	1-216-864-11	SHORT			
R3937	1-216-809-11	RES-CHIP	100	5%	1/16W
R3940	1-216-864-11	SHORT			
R3942	1-216-864-11	SHORT			
R3943	1-216-864-11	SHORT			
R3945	1-216-864-11	SHORT			
R3946	1-216-864-11	SHORT			
R3953	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3954	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3955	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3956	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3957	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3958	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3959	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3960	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3961	1-208-755-11	METAL CHIP	75	0.50%	1/10W

RESISTOR BRIDGE

RB3301	1-234-525-21	RES, CHIP NETWORK	56
RB3302	1-234-525-21	RES, CHIP NETWORK	56
RB3303	1-234-525-21	RES, CHIP NETWORK	56
RB3304	1-234-525-21	RES, CHIP NETWORK	56
RB3305	1-234-525-21	RES, CHIP NETWORK	56
RB3306	1-234-525-21	RES, CHIP NETWORK	56
RB3307	1-234-525-21	RES, CHIP NETWORK	56
RB3401	1-234-524-21	RES, CHIP NETWORK	33
RB3402	1-234-524-21	RES, CHIP NETWORK	33
RB3403	1-234-524-21	RES, CHIP NETWORK	33
RB3404	1-234-524-21	RES, CHIP NETWORK	33
RB3405	1-234-524-21	RES, CHIP NETWORK	33

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REF. NO.	PART NO.	DESCRIPTION	VALUES
RB3406	1-234-524-21	RES, CHIP NETWORK	33
RB3407	1-234-524-21	RES, CHIP NETWORK	33
RB3408	1-234-524-21	RES, CHIP NETWORK	33
RB3409	1-234-524-21	RES, CHIP NETWORK	33
RB3410	1-234-524-21	RES, CHIP NETWORK	33
RB3411	1-234-524-21	RES, CHIP NETWORK	33
RB3412	1-234-524-21	RES, CHIP NETWORK	33
RB3413	1-233-576-11	RES, CHIP NETWORK	100
RB3414	1-233-576-11	RES, CHIP NETWORK	100
RB3415	1-233-576-11	RES, CHIP NETWORK	100
RB3416	1-233-576-11	RES, CHIP NETWORK	100
RB3417	1-233-576-11	RES, CHIP NETWORK	100
RB3418	1-233-576-11	RES, CHIP NETWORK	100
RB3419	1-233-576-11	RES, CHIP NETWORK	100
RB3420	1-233-576-11	RES, CHIP NETWORK	100
RB3421	1-233-576-11	RES, CHIP NETWORK	100
RB3422	1-233-576-11	RES, CHIP NETWORK	100
RB3423	1-233-576-11	RES, CHIP NETWORK	100
RB3424	1-233-576-11	RES, CHIP NETWORK	100
RB3425	1-233-576-11	RES, CHIP NETWORK	100
	CRYSTAL		
X3001	1-781-282-11	VIBRATOR, CERAMIC	
X3047	1-567-505-11	OSCILLATOR, CRYSTAL	
X3089	1-781-945-21	VIBRATOR, CERAMIC	
X3110	1-567-505-11	OSCILLATOR, CRYSTAL	
X3401	1-781-887-21	VIBRATOR, CRYSTAL	
X3601	1-767-179-31	VIBRATOR, SERAMIC	
X3602	1-767-179-31	VIBRATOR, SERAMIC	
X3603	1-767-989-11	VIBRATOR, CERAMIC	

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*	**A-1299-560-A**	**A COMPLETE PC BOARD**	
*	4-374-846-11	COVER,CAPACITOR, CAP TYPE	
	4-382-854-01	SCREW (M3X8), P, SW (+)	
	CAPACITOR		
C001	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C002	1-104-665-11	ELECT	100µF 20% 10V
C003	1-126-960-11	ELECT	1µF 20% 50V
C004	1-126-967-11	ELECT	47µF 20% 50V
C005	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C006	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C007	1-126-933-11	ELECT	100µF 20% 16V
C008	1-163-021-91	CERAMIC CHIP	0.01µF 10% 50V
C009	1-126-964-11	ELECT	10µF 20% 50V
C010	1-126-933-11	ELECT	100µF 20% 16V

REF. NO.	PART NO.	DESCRIPTION	VALUES
C011	1-163-021-91	CERAMIC CHIP	0.01µF 10% 50V
C012	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C013	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C014	1-126-960-11	ELECT	1µF 20% 50V
C023	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C025	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C027	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C028	1-126-933-11	ELECT	100µF 20% 16V
C030	1-104-665-11	ELECT	100µF 20% 10V
C032	1-126-933-11	ELECT	100µF 20% 16V
C035	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C037	1-163-021-91	CERAMIC CHIP	0.01µF 10% 50V
C038	1-126-935-11	ELECT	470µF 20% 16V
C039	1-126-964-11	ELECT	10µF 20% 50V
C041	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C048	1-126-964-11	ELECT	10µF 20% 50V
C051	1-107-714-11	ELECT	10µF 20% 16V
C052	1-107-714-11	ELECT	10µF 20% 16V
C115	1-163-001-11	CERAMIC CHIP	220pF 10% 50V
C116	1-104-760-11	CERAMIC CHIP	0.047µF 10% 50V
C117	1-164-346-11	CERAMIC CHIP	1µF 16V
C119	1-163-001-11	CERAMIC CHIP	220pF 10% 50V
C120	1-104-760-11	CERAMIC CHIP	0.047µF 10% 50V
C121	1-164-346-11	CERAMIC CHIP	1µF 16V
C205	1-115-340-11	CERAMIC CHIP	0.22µF 10% 25V
C210	1-127-760-11	CERAMIC CHIP	4.7µF 10% 6.3V
C211	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V
C212	1-126-933-11	ELECT	100µF 20% 16V
C213	1-164-161-11	CERAMIC CHIP	0.0022µF 10% 50V
C214	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V
C216	1-126-933-11	ELECT	100µF 20% 16V
C217	1-107-823-11	CERAMIC CHIP	0.47µF 10% 16V
C219	1-164-344-11	CERAMIC CHIP	0.068µF 10% 25V
C220	1-107-823-11	CERAMIC CHIP	0.47µF 10% 16V
C221	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V
C222	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V
C224	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V
C225	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V
C226	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V
C227	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V
C229	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V
C230	1-107-823-11	CERAMIC CHIP	0.47µF 10% 16V
C232	1-163-021-91	CERAMIC CHIP	0.01µF 10% 50V
C233	1-164-492-11	CERAMIC CHIP	0.15µF 10% 16V
C234	1-125-838-11	CERAMIC CHIP	2.2µF 10% 6.3V
C235	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V
C236	1-126-964-11	ELECT	10µF 20% 50V
C237	1-126-933-11	ELECT	100µF 20% 16V

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
C238	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C239	1-126-964-11	ELECT	10µF	20%	50V
C240	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C241	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C242	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C243	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C244	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C245	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C246	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C247	1-126-933-11	ELECT	100µF	20%	16V
C248	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V
C249	1-126-967-11	ELECT	47µF	20%	50V
C250	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C251	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C252	1-126-933-11	ELECT	100µF	20%	16V
C253	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C254	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C255	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C256	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C257	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V
C258	1-164-346-11	CERAMIC CHIP	1µF		16V
C259	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C260	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C261	1-126-933-11	ELECT	100µF	20%	16V
C262	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C701	1-164-489-11	CERAMIC CHIP	0.22µF	10%	16V
C702	1-126-947-11	ELECT	47µF	20%	16V
C703	1-126-947-11	ELECT	47µF	20%	16V
C705	1-164-346-11	CERAMIC CHIP	1µF		16V
C708	1-164-346-11	CERAMIC CHIP	1µF		16V
C710	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C711	1-163-227-11	CERAMIC CHIP	10pF	0.50pF	50V
C712	1-126-947-11	ELECT	47µF	20%	16V
C713	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C715	1-126-964-11	ELECT	10µF	20%	50V
C717	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C718	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C719	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C720	1-126-935-11	ELECT	470µF	20%	16V
C721	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C722	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C724	1-126-961-11	ELECT	2.2µF	20%	50V
C731	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C732	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C733	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C735	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C747	1-126-767-11	ELECT	1000µF	20%	16V
C748	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
⚠ C6002	1-136-346-21	MYLAR	0.22µF	20%	125V
C6003	1-117-227-11	MYLAR	1µF	10%	450V
C6004	1-126-961-11	ELECT	2.2µF	20%	50V
C6005	1-126-961-11	ELECT	2.2µF	20%	50V
C6006	1-126-967-11	ELECT	47µF	20%	50V
C6007	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C6008	1-126-968-11	ELECT	100µF	20%	50V
C6009	1-126-947-11	ELECT	47µF	20%	25V
C6011	1-126-968-11	ELECT	100µF	20%	50V
C6013	1-119-887-51	CERAMIC	1000pF	20%	250V
C6014	1-135-945-21	FILM	10000pF	3%	800V
C6015	1-130-495-00	MYLAR	0.1µF	5%	50V
C6017	1-125-969-91	CERAMIC	680pF	10%	1KV
C6018	1-126-929-11	ELECT	4700µF	20%	10V
C6019	1-128-546-11	ELECT	10000µF	20%	10V
C6020	1-126-936-11	ELECT	3300µF	20%	16V
C6021	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C6026	1-126-933-11	ELECT	100µF	20%	16V
C6027	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
⚠ C6029	1-136-311-11	MYLAR	0.47µF	20%	125V
C6030	1-126-935-11	ELECT	470µF	20%	16V
C6033	1-126-941-11	ELECT	470µF	20%	25V
C6045	1-126-926-11	ELECT	1000µF	20%	10V
C6048	1-126-767-11	ELECT	1000µF	20%	16V
C6057	1-126-916-11	ELECT	1000µF	20%	6.3V
C6059	1-126-971-11	ELECT	470µF	20%	50V
C6060	1-135-573-51	ELECT	15000µF	20%	25V
C6061	1-126-960-11	ELECT	1µF	20%	50V
C6062	1-126-947-11	ELECT	47µF	20%	25V
C6063	1-136-479-11	FILM	0.001µF	2%	50V
C6064	1-126-964-11	ELECT	10µF	20%	50V
C6065	1-126-933-11	ELECT	100µF	20%	16V
C7001	1-126-961-11	ELECT	2.2µF	20%	50V
C7006	1-126-767-11	ELECT	1000µF	20%	16V
C7007	1-136-169-00	FILM	0.22µF	5%	50V
C7008	1-126-767-11	ELECT	1000µF	20%	16V
C7009	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C7010	1-126-963-11	ELECT	4.7µF	20%	50V
C7011	1-126-959-11	ELECT	0.47µF	20%	50V
C7012	1-163-017-00	CERAMIC CHIP	0.001µF	10%	50V
C7013	1-164-182-11	CERAMIC CHIP	0.01µF	10%	50V
C7014	1-163-989-11	CERAMIC CHIP	0.033µF	10%	25V
C7015	1-163-989-11	CERAMIC CHIP	0.033µF	10%	25V
C7016	1-126-959-11	ELECT	0.47µF	20%	50V
C7017	1-126-963-11	ELECT	4.7µF	20%	50V
C7018	1-136-169-00	FILM	0.22µF	5%	50V
C7019	1-163-017-00	CERAMIC CHIP	0.001µF	10%	50V

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
C7020	1-163-989-11	CERAMIC CHIP	0.033µF	10%	25V
C7021	1-164-182-11	CERAMIC CHIP	0.01µF	10%	50V
C7022	1-163-989-11	CERAMIC CHIP	0.033µF	10%	25V
C7023	1-126-935-11	ELECT	470µF	20%	16V
C7024	1-126-935-11	ELECT	470µF	20%	16V
C7025	1-126-960-11	ELECT	1µF	20%	50V
C7026	1-126-960-11	ELECT	1µF	20%	50V
C7028	1-136-165-00	FILM	0.1µF	5%	50V
C7029	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C7030	1-126-953-11	ELECT	2200µF	20%	35V
C7032	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C7033	1-126-934-11	ELECT	220µF	20%	16V
C7034	1-136-165-00	FILM	0.1µF	5%	50V
C7035	1-136-165-00	FILM	0.1µF	5%	50V
C7036	1-126-942-61	ELECT	1000µF	20%	25V
C7037	1-136-160-00	FILM	0.015µF	5%	50V
C7038	1-126-942-61	ELECT	1000µF	20%	25V
C7039	1-136-160-00	FILM	0.015µF	5%	50V
C7056	1-126-953-11	ELECT	2200µF	20%	35V
C7057	1-126-953-11	ELECT	2200µF	20%	35V
C7058	1-126-960-11	ELECT	1µF	20%	50V
C7059	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C7061	1-126-964-11	ELECT	10µF	20%	50V
C7062	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C7063	1-136-165-00	FILM	0.1µF	5%	50V
C7064	1-126-953-11	ELECT	2200µF	20%	35V
C7066	1-136-165-00	FILM	0.1µF	5%	50V
C7067	1-136-165-00	FILM	0.1µF	5%	50V
C7069	1-136-165-00	FILM	0.039µF	5%	50V
C7070	1-136-165-00	FILM	0.039µF	5%	50V
C7071	1-137-437-11	MYLAR	0.0022µF	5%	50V
C7072	1-137-437-11	MYLAR	0.0022µF	5%	50V
C7074	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C7075	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C7076	1-126-968-11	ELECT	100µF	20%	50V
C7077	1-126-960-11	ELECT	1µF	20%	50V
C7078	1-126-960-11	ELECT	1µF	20%	50V
C7084	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C7088	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C7089	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C7090	1-126-947-11	ELECT	47µF	20%	25V
C7094	1-126-960-11	ELECT	1µF	20%	50V
C7095	1-126-960-11	ELECT	1µF	20%	50V
C7096	1-126-960-11	ELECT	1µF	20%	50V
C7099	1-126-964-11	ELECT	10µF	20%	50V
C7101	1-126-935-11	ELECT	470µF	20%	16V
C7102	1-126-934-11	ELECT	220µF	20%	16V
C7103	1-163-038-91	CERAMIC CHIP	0.1µF		25V

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C7105	1-126-935-11	ELECT	470µF	20%	16V
C7108	1-126-961-11	ELECT	2.2µF	20%	50V
C7109	1-126-961-11	ELECT	2.2µF	20%	50V
C7110	1-126-941-11	ELECT	470µF	20%	25V
C7151	1-126-967-11	ELECT	47µF	20%	50V
C7152	1-126-967-11	ELECT	47µF	20%	50V

CONNECTOR

*	CN001	1-573-296-21	CONNECTOR, BOARD TO BOARD 10P
*	CN003	1-785-304-11	CONNECTOR, DIN (RECEPTACLE) 64
*	CN201	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P
*	CN202	1-764-333-11	PLUG,CONNECTOR 10P
*	CN203	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P
*	CN204	1-564-506-11	PLUG,CONNECTOR 3P
*	CN701	1-564-515-11	PLUG,CONNECTOR 12P
*	CN702	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P
*	CN703	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P
*	CN705	1-564-508-11	PLUG,CONNECTOR 5P
*	CN706	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P
*	CN707	1-564-507-11	PLUG,CONNECTOR 4P
*	CN6001	1-766-241-11	PIN,CONNECTOR (PC BOARD) 3P
*	CN6002	1-766-241-11	PIN,CONNECTOR (PC BOARD) 3P
*	CN6003	1-508-786-00	PIN,CONNECTOR (5MM PITCH) 2P
*	CN6005	1-766-176-11	PIN,CONNECTOR (PC BOARD) 6P
*	CN6006	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P
	CN6007	1-580-843-11	PIN,CONNECTOR (POWER)
*	CN6013	1-766-240-11	PIN,CONNECTOR (PC BOARD) 2P
*	CN7001	1-573-296-21	CONNECTOR, BOARD TO BOARD 10P
*	CN7003	1-564-511-11	PLUG,CONNECTOR 8P
*	CN7008	1-564-511-61	PLUG,CONNECTOR 8P

DIODE

D004	8-719-977-28	DIODE UDZSTE-1710B
D008	8-719-977-28	DIODE UDZSTE-1710B
D203	8-719-025-31	DIODE 02CZ5.6-TE85L
D211	8-719-991-33	DIODE 1SS133T-77
D212	8-719-404-50	DIODE MA111-TX
D214	8-719-404-50	DIODE MA111-TX
D215	8-719-404-50	DIODE MA111-TX
D701	8-719-914-43	DIODE DAN202K-T-146
D703	8-719-914-43	DIODE DAN202K-T-146
D705	8-719-404-50	DIODE MA111-TX
D706	8-719-914-43	DIODE DAN202K-T-146
D707	8-719-914-43	DIODE DAN202K-T-146
D708	8-719-404-50	DIODE MA111-TX
D709	8-719-991-33	DIODE 1SS133T-77
D710	8-719-914-43	DIODE DAN202K-T-146
D711	8-719-914-44	DIODE DAP202K-T-146
D715	8-719-914-43	DIODE DAN202K-T-146
D716	8-719-914-44	DIODE DAP202K-T-146

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

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REF. NO.	PART NO.	DESCRIPTION	VALUES
D719	8-719-404-50	DIODE MA111-TX	
D720	8-719-404-50	DIODE MA111-TX	
D721	8-719-404-50	DIODE MA111-TX	
D722	8-719-404-50	DIODE MA111-TX	
D723	8-719-914-43	DIODE DAN202K-T-146	
D724	8-719-404-50	DIODE MA111-TX	
D725	8-719-404-50	DIODE MA111-TX	
D726	8-719-404-50	DIODE MA111-TX	
D727	8-719-404-50	DIODE MA111-TX	
D728	8-719-404-50	DIODE MA111-TX	
D6001	8-719-991-33	DIODE 1SS133T-77	
D6002	8-719-991-33	DIODE 1SS133T-77	
D6003	8-719-979-64	DIODE µF4005PKG23	
D6005	8-719-063-73	DIODE D1NL20U-TR	
D6009	8-719-063-73	DIODE D1NL20U-TR	
D6011	8-719-031-79	DIODE D5SC4M	
D6012	8-719-031-79	DIODE D5SC4M	
D6013	8-719-031-79	DIODE D5SC4M	
D6014	8-719-921-63	DIODE MTZJ-T-77-7.5B	
D6017	8-719-921-37	DIODE MTZJ-T-77-4.7	
D6018	8-719-991-33	DIODE 1SS133T-77	
D6020	8-719-511-40	DIODE S1VB20	
D6025	8-719-404-50	DIODE MA111-TX	
D7002	8-719-991-33	DIODE 1SS133T-77	
D7003	8-719-914-43	DIODE DAN202K-T-146	
D7004	8-719-914-44	DIODE DAP202K-T-146	
D7005	8-719-071-74	DIODE HZU11B1TRF	
D7009	8-719-404-50	DIODE MA111-TX	
D7010	8-719-404-50	DIODE MA111-TX	
D7011	8-719-404-50	DIODE MA111-TX	
D7012	8-719-404-50	DIODE MA111-TX	
D7013	8-719-041-97	DIODE MA113-(TX)	
D7014	8-719-924-13	DIODE MTZJ-T-77-22B	
D7015	8-719-924-13	DIODE MTZJ-T-77-22B	
D7016	8-719-041-97	DIODE MA113-(TX)	
D7017	8-719-041-97	DIODE MA113-(TX)	
D7103	8-719-404-50	DIODE MA111-TX	
	FUSE		
⚠ F6001	1-532-506-51	FUSE	6.3A/250V
	FERRITE BEAD		
FB6001	1-412-911-11	FERRITE	0µH
FB6003	1-412-911-11	FERRITE	0µH
FB6004	1-412-911-11	FERRITE	0µH
FB6005	1-412-911-11	FERRITE	0µH
FB6007	1-412-911-11	FERRITE	0µH
⚠ FB6012	1-412-911-11	FERRITE	0µH
⚠ FB6013	1-412-911-11	FERRITE	0µH

REF. NO.	PART NO.	DESCRIPTION	VALUES
	FUSE HOLDER		
FH6001	1-533-223-11	HOLDER, FUSE	
FH6002	1-533-223-11	HOLDER, FUSE	
	IC		
IC201	8-752-100-25	IC CXA2150AQ	
IC701	6-800-051-01	IC M306V2ME-153FP	
IC702	8-759-349-11	IC PST9145NL	
IC707	8-759-672-78	IC M24C08-BN6(A)	
IC6001	8-759-670-30	IC MCZ3001D	
IC6002	8-759-140-85	IC UPC1093J-T	
IC6003	8-759-520-49	IC PQ30RV21	
IC6007	8-759-513-71	IC PQ05RF21	
IC6010	8-759-653-07	IC PQ09RD21	
IC6011	8-759-450-47	IC BA05T	
IC7001	8-759-678-92	IC BH3868AFS-E2	
IC7002	8-759-246-70	IC TA8216H	
IC7005	8-759-246-70	IC TA8216H	
IC7006	8-759-331-71	IC NJM4558E(TE2)	
IC7007	8-759-331-71	IC NJM4558E(TE2)	
	COIL		
L001	1-469-320-21	INDUCTOR	100µH
L002	1-469-320-21	INDUCTOR	100µH
L003	1-469-317-21	INDUCTOR	10µH
L004	1-469-320-21	INDUCTOR	100µH
L005	1-469-320-21	INDUCTOR	100µH
L006	1-469-317-21	INDUCTOR	10µH
L201	1-469-317-21	INDUCTOR	10µH
L202	1-469-317-21	INDUCTOR	10µH
L203	1-469-317-21	INDUCTOR	10µH
L701	1-412-911-11	FERRITE	0µH
L702	1-412-911-11	FERRITE	0µH
L703	1-414-179-21	INDUCTOR	2.2µH
L6001	1-406-665-11	INDUCTOR	100µH
L6002	1-406-659-11	INDUCTOR	10µH
L6003	1-406-659-11	INDUCTOR	10µH
L6004	1-412-525-31	INDUCTOR	10µH
L6006	1-412-519-11	INDUCTOR	3.3µH
L6007	1-412-519-11	INDUCTOR	3.3µH
L6008	1-469-317-21	INDUCTOR	10µH
L7002	1-414-187-11	INDUCTOR	47µH
	PHOTO COUPLER		
PH6001	8-749-924-35	PHOTO COUPLER ON3171-R	
	TRANSISTOR		
Q001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q002	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q004	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	

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REF. NO.	PART NO.	DESCRIPTION	VALUES
Q005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q012	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q015	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q027	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q203	8-729-122-63	TRANSISTOR 2SA1226-T1E4	
Q204	8-729-122-63	TRANSISTOR 2SA1226-T1E4	
Q207	8-729-122-63	TRANSISTOR 2SA1226-T1E4	
Q208	8-729-122-63	TRANSISTOR 2SA1226-T1E4	
Q209	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q211	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q212	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q214	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q216	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q217	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q701	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q702	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q703	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q704	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q705	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q706	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q707	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q709	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q710	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q712	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q717	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q721	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q723	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q724	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q726	8-729-901-47	TRANSISTOR DTA143EKA-T146	
Q727	8-729-901-47	TRANSISTOR DTA143EKA-T146	
Q728	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q729	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q730	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q731	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q6001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q6002	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q6007	8-729-052-29	TRANSISTOR 2SK2876-01MR-F122	
Q6008	8-729-052-29	TRANSISTOR 2SK2876-01MR-F122	
Q6009	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q6010	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q7001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q7004	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q7005	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q7009	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q7010	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q7013	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q7014	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q7015	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q7016	8-729-900-53	TRANSISTOR DTC114EKA-T146	

RESISTOR

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R004	1-216-049-11	RES-CHIP	1K	5%	1/10W
R005	1-216-049-11	RES-CHIP	1K	5%	1/10W
R006	1-216-295-91	SHORT			
R007	1-216-017-91	RES-CHIP	47	5%	1/10W
R008	1-216-073-91	RES-CHIP	10K	5%	1/10W
R009	1-216-017-91	RES-CHIP	47	5%	1/10W
R010	1-216-073-91	RES-CHIP	10K	5%	1/10W
R011	1-216-113-00	RES-CHIP	470K	5%	1/10W
R012	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R013	1-216-081-00	RES-CHIP	22K	5%	1/10W
R014	1-216-085-91	RES-CHIP	33K	5%	1/10W
R015	1-208-776-11	METAL CHIP	560	0.50%	1/10W
R016	1-216-025-11	RES-CHIP	100	5%	1/10W
R017	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R037	1-216-295-91	SHORT			
R039	1-216-025-11	RES-CHIP	100	5%	1/10W
R042	1-216-025-11	RES-CHIP	100	5%	1/10W
R049	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R052	1-216-085-91	RES-CHIP	33K	5%	1/10W
R055	1-216-081-00	RES-CHIP	22K	5%	1/10W
R061	1-208-776-11	METAL CHIP	560	0.50%	1/10W
R065	1-216-025-11	RES-CHIP	100	5%	1/10W
R082	1-216-073-91	RES-CHIP	10K	5%	1/10W
R083	1-216-073-91	RES-CHIP	10K	5%	1/10W
R160	1-216-113-00	RES-CHIP	470K	5%	1/10W
R163	1-216-642-11	METAL CHIP	430	0.50%	1/10W
R164	1-216-041-00	RES-CHIP	470	5%	1/10W
R165	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R166	1-216-097-11	RES-CHIP	100K	5%	1/10W
R167	1-216-121-11	RES-CHIP	1M	5%	1/10W
R168	1-216-073-91	RES-CHIP	10K	5%	1/10W
R169	1-216-073-91	RES-CHIP	10K	5%	1/10W
R170	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R171	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R172	1-216-097-11	RES-CHIP	100K	5%	1/10W
R173	1-216-121-11	RES-CHIP	1M	5%	1/10W
R174	1-216-073-91	RES-CHIP	10K	5%	1/10W
R175	1-216-073-91	RES-CHIP	10K	5%	1/10W
R176	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R204	1-216-073-91	RES-CHIP	10K	5%	1/10W
R205	1-216-025-11	RES-CHIP	100	5%	1/10W
R206	1-208-752-11	METAL CHIP	56	0.50%	1/10W
R207	1-249-413-11	CARBON	470	5%	1/4W
R208	1-216-295-91	SHORT			
R210	1-216-025-11	RES-CHIP	100	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R211	1-208-752-11	METAL CHIP	56	0.50%	1/10W
R215	1-249-413-11	CARBON	470	5%	1/4W
R219	1-216-025-11	RES-CHIP	100	5%	1/10W
R220	1-208-752-11	METAL CHIP	56	0.50%	1/10W
R221	1-249-413-11	CARBON	470	5%	1/4W
R223	1-216-025-11	RES-CHIP	100	5%	1/10W
R226	1-216-073-91	RES-CHIP	10K	5%	1/10W
R228	1-216-025-11	RES-CHIP	100	5%	1/10W
R229	1-216-025-11	RES-CHIP	100	5%	1/10W
R230	1-216-025-11	RES-CHIP	100	5%	1/10W
R231	1-216-025-11	RES-CHIP	100	5%	1/10W
R232	1-216-025-11	RES-CHIP	100	5%	1/10W
R233	1-216-025-11	RES-CHIP	100	5%	1/10W
R234	1-216-025-11	RES-CHIP	100	5%	1/10W
R235	1-216-025-11	RES-CHIP	100	5%	1/10W
R236	1-216-025-11	RES-CHIP	100	5%	1/10W
R237	1-216-025-11	RES-CHIP	100	5%	1/10W
R238	1-216-025-11	RES-CHIP	100	5%	1/10W
R239	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R240	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R241	1-216-133-91	RES-CHIP	3.3M	5%	1/10W
R242	1-216-075-00	RES-CHIP	12K	5%	1/10W
R243	1-216-073-91	RES-CHIP	10K	5%	1/10W
R244	1-216-025-11	RES-CHIP	100	5%	1/10W
R245	1-216-073-91	RES-CHIP	10K	5%	1/10W
R246	1-216-073-91	RES-CHIP	10K	5%	1/10W
R247	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R248	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R249	1-216-025-11	RES-CHIP	100	5%	1/10W
R250	1-216-097-11	RES-CHIP	100K	5%	1/10W
R251	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R252	1-216-025-11	RES-CHIP	100	5%	1/10W
R253	1-216-043-91	RES-CHIP	560	5%	1/10W
R255	1-216-025-11	RES-CHIP	100	5%	1/10W
R256	1-216-041-00	RES-CHIP	470	5%	1/10W
R257	1-216-017-91	RES-CHIP	47	5%	1/10W
R258	1-216-017-91	RES-CHIP	47	5%	1/10W
R259	1-216-017-91	RES-CHIP	47	5%	1/10W
R260	1-216-037-00	RES-CHIP	330	5%	1/10W
R261	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R262	1-216-025-11	RES-CHIP	100	5%	1/10W
R263	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R264	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R265	1-216-073-91	RES-CHIP	10K	5%	1/10W
R266	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R267	1-216-073-91	RES-CHIP	10K	5%	1/10W
R274	1-216-025-11	RES-CHIP	100	5%	1/10W
R275	1-216-069-00	RES-CHIP	6.8K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R276	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R277	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R278	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R280	1-216-295-91	SHORT			
R281	1-216-295-91	SHORT			
R282	1-216-295-91	SHORT			
R283	1-216-295-91	SHORT			
R284	1-216-295-91	SHORT			
R701	1-216-089-91	RES-CHIP	47K	5%	1/10W
R702	1-216-097-11	RES-CHIP	100K	5%	1/10W
R703	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R704	1-216-073-91	RES-CHIP	10K	5%	1/10W
R705	1-216-101-00	RES-CHIP	150K	5%	1/10W
R706	1-216-073-91	RES-CHIP	10K	5%	1/10W
R707	1-216-097-11	RES-CHIP	100K	5%	1/10W
R708	1-216-025-11	RES-CHIP	100	5%	1/10W
R709	1-216-097-11	RES-CHIP	100K	5%	1/10W
R710	1-216-073-91	RES-CHIP	10K	5%	1/10W
R711	1-216-073-91	RES-CHIP	10K	5%	1/10W
R712	1-216-049-11	RES-CHIP	1K	5%	1/10W
R713	1-216-025-11	RES-CHIP	100	5%	1/10W
R714	1-216-025-11	RES-CHIP	100	5%	1/10W
R719	1-216-049-11	RES-CHIP	1K	5%	1/10W
R721	1-216-049-11	RES-CHIP	1K	5%	1/10W
R727	1-216-049-11	RES-CHIP	1K	5%	1/10W
R729	1-216-049-11	RES-CHIP	1K	5%	1/10W
R731	1-216-073-91	RES-CHIP	10K	5%	1/10W
R740	1-216-073-91	RES-CHIP	10K	5%	1/10W
R741	1-216-073-91	RES-CHIP	10K	5%	1/10W
R742	1-216-041-00	RES-CHIP	470	5%	1/10W
R743	1-216-025-11	RES-CHIP	100	5%	1/10W
R744	1-216-049-11	RES-CHIP	1K	5%	1/10W
R748	1-216-081-00	RES-CHIP	22K	5%	1/10W
R749	1-216-049-11	RES-CHIP	1K	5%	1/10W
R754	1-216-025-11	RES-CHIP	100	5%	1/10W
R755	1-216-025-11	RES-CHIP	100	5%	1/10W
R756	1-216-025-11	RES-CHIP	100	5%	1/10W
R757	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R758	1-216-025-11	RES-CHIP	100	5%	1/10W
R762	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R763	1-216-295-91	SHORT			
R764	1-216-049-11	RES-CHIP	1K	5%	1/10W
R767	1-216-049-11	RES-CHIP	1K	5%	1/10W
R769	1-216-049-11	RES-CHIP	1K	5%	1/10W
R771	1-216-049-11	RES-CHIP	1K	5%	1/10W
R772	1-216-081-00	RES-CHIP	22K	5%	1/10W
R773	1-216-081-00	RES-CHIP	22K	5%	1/10W
R774	1-216-081-00	RES-CHIP	22K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R776	1-216-049-11	RES-CHIP	1K	5%	1/10W
R777	1-216-073-91	RES-CHIP	10K	5%	1/10W
R780	1-216-073-91	RES-CHIP	10K	5%	1/10W
R781	1-216-025-11	RES-CHIP	100	5%	1/10W
R784	1-216-025-11	RES-CHIP	100	5%	1/10W
R785	1-216-049-11	RES-CHIP	1K	5%	1/10W
R787	1-216-121-11	RES-CHIP	1M	5%	1/10W
R788	1-216-295-91	SHORT			
R789	1-216-041-00	RES-CHIP	470	5%	1/10W
R791	1-216-025-11	RES-CHIP	100	5%	1/10W
R792	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R793	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R794	1-216-017-91	RES-CHIP	47	5%	1/10W
R795	1-216-025-11	RES-CHIP	100	5%	1/10W
R796	1-216-295-91	SHORT			
R797	1-216-017-91	RES-CHIP	47	5%	1/10W
R798	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R799	1-216-049-11	RES-CHIP	1K	5%	1/10W
R800	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R801	1-216-025-11	RES-CHIP	100	5%	1/10W
R802	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R803	1-216-017-91	RES-CHIP	47	5%	1/10W
R804	1-216-037-00	RES-CHIP	330	5%	1/10W
R805	1-216-037-00	RES-CHIP	330	5%	1/10W
R806	1-216-037-00	RES-CHIP	330	5%	1/10W
R807	1-216-017-91	RES-CHIP	47	5%	1/10W
R808	1-216-049-11	RES-CHIP	1K	5%	1/10W
R812	1-216-049-11	RES-CHIP	1K	5%	1/10W
R813	1-216-049-11	RES-CHIP	1K	5%	1/10W
R814	1-216-025-11	RES-CHIP	100	5%	1/10W
R815	1-216-025-11	RES-CHIP	100	5%	1/10W
R816	1-216-025-11	RES-CHIP	100	5%	1/10W
R817	1-216-025-11	RES-CHIP	100	5%	1/10W
R818	1-216-025-11	RES-CHIP	100	5%	1/10W
R819	1-216-037-00	RES-CHIP	330	5%	1/10W
R822	1-216-037-00	RES-CHIP	330	5%	1/10W
R824	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R825	1-216-025-11	RES-CHIP	100	5%	1/10W
R827	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R828	1-216-073-91	RES-CHIP	10K	5%	1/10W
R829	1-216-073-91	RES-CHIP	10K	5%	1/10W
R830	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R834	1-216-041-00	RES-CHIP	470	5%	1/10W
R836	1-216-049-11	RES-CHIP	1K	5%	1/10W
R837	1-216-025-11	RES-CHIP	100	5%	1/10W
R838	1-216-049-11	RES-CHIP	1K	5%	1/10W
R839	1-216-025-11	RES-CHIP	100	5%	1/10W
R841	1-216-033-00	RES-CHIP	220	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R842	1-216-081-00	RES-CHIP	22K	5%	1/10W
R843	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R847	1-216-025-11	RES-CHIP	100	5%	1/10W
R848	1-216-025-11	RES-CHIP	100	5%	1/10W
R849	1-216-295-91	SHORT			
R850	1-216-295-91	SHORT			
R851	1-216-295-91	SHORT			
R852	1-216-049-11	RES-CHIP	1K	5%	1/10W
R853	1-216-295-91	SHORT			
R854	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R856	1-216-049-11	RES-CHIP	1K	5%	1/10W
R857	1-216-025-11	RES-CHIP	100	5%	1/10W
R858	1-216-295-91	SHORT			
R859	1-216-295-91	SHORT			
R860	1-216-689-11	RES-CHIP	39K	5%	1/10W
R861	1-216-689-11	RES-CHIP	39K	5%	1/10W
R862	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R863	1-216-049-11	RES-CHIP	1K	5%	1/10W
R864	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R865	1-216-295-91	SHORT			
R866	1-216-295-91	SHORT			
R867	1-216-081-00	RES-CHIP	22K	5%	1/10W
R6001	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6002	1-249-393-11	CARBON	10	5%	1/4W
⚠ R6003	1-219-776-11	CARBON	2.2M	10%	1/2W
R6004	1-216-121-11	RES-CHIP	1M	5%	1/10W
R6006	1-220-926-11	FUSIBLE	0.47	10%	1/2W
R6007	1-215-481-00	METAL	330K	1%	1/4W
R6008	1-215-481-00	METAL	330K	1%	1/4W
R6009	1-215-481-00	METAL	330K	1%	1/4W
R6010	1-249-393-11	CARBON	10	5%	1/4W
R6011	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R6012	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6015	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6019	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6020	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6021	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R6022	1-208-803-11	METAL CHIP	7.5K	0.50%	1/10W
R6025	1-249-417-11	CARBON	1K	5%	1/4W
R6029	1-216-105-91	RES-CHIP	220K	5%	1/10W
R6038	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R6039	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R6040	1-208-840-11	METAL CHIP	270K	0.50%	1/10W
⚠ R6041	1-240-241-11	CEMENTED	0.47	5%	20W
⚠ R6042	1-240-241-11	CEMENTED	0.47	5%	20W
R6043	1-211-964-11	METAL CHIP	33	0.50%	1/10W
R6044	1-249-393-11	CARBON	10	5%	1/4W
R6046	1-216-073-91	RES-CHIP	10K	5%	1/10W

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	REF. NO.	PART NO.	DESCRIPTION	VALUES		
	R6047	1-216-041-00	RES-CHIP	470	5%	1/10W
	R6049	1-216-363-00	METAL OXIDE	0.33	5%	2W
	R6050	1-216-363-00	METAL OXIDE	0.33	5%	2W
	R6051	1-249-393-11	CARBON	10	5%	1/4W
	R6052	1-216-073-91	RES-CHIP	10K	5%	1/10W
	R6053	1-215-907-11	METAL OXIDE	22	5%	3W
	R6055	1-216-033-00	RES-CHIP	220	5%	1/10W
	R6056	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
	R6058	1-208-758-11	METAL CHIP	100	0.50%	1/10W
	R6059	1-249-417-11	CARBON	1K	5%	1/4W
	R6062	1-216-295-91	SHORT			
	R6063	1-216-073-91	RES-CHIP	10K	5%	1/10W
	R6064	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
	R6065	1-216-049-11	RES-CHIP	1K	5%	1/10W
⚠	R6066	1-216-343-00	METAL OXIDE	0.33	5%	1W
	R6067	1-216-049-11	RES-CHIP	1K	5%	1/10W
	R6068	1-249-433-11	CARBON	22K	5%	1/4W
	R7002	1-216-097-11	RES-CHIP	100K	5%	1/10W
	R7003	1-216-689-11	RES-CHIP	39K	5%	1/10W
	R7004	1-216-689-11	RES-CHIP	39K	5%	1/10W
	R7005	1-216-121-11	RES-CHIP	1M	5%	1/10W
	R7006	1-216-089-91	RES-CHIP	47K	5%	1/10W
	R7007	1-216-017-91	RES-CHIP	47	5%	1/10W
	R7008	1-216-085-91	RES-CHIP	33K	5%	1/10W
	R7009	1-216-295-91	SHORT			
	R7010	1-216-295-91	SHORT			
	R7011	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
	R7012	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
	R7013	1-216-077-91	RES-CHIP	15K	5%	1/10W
	R7014	1-249-429-11	CARBON	10K	5%	1/4W
	R7015	1-249-429-11	CARBON	10K	5%	1/4W
	R7016	1-216-073-91	RES-CHIP	10K	5%	1/10W
	R7017	1-216-073-91	RES-CHIP	10K	5%	1/10W
	R7018	1-216-073-91	RES-CHIP	10K	5%	1/10W
	R7019	1-216-073-91	RES-CHIP	10K	5%	1/10W
	R7021	1-216-049-11	RES-CHIP	1K	5%	1/10W
	R7022	1-216-073-91	RES-CHIP	10K	5%	1/10W
	R7023	1-249-385-11	CARBON	2.2	5%	1/4W
	R7024	1-216-049-11	RES-CHIP	1K	5%	1/10W
	R7025	1-216-049-11	RES-CHIP	1K	5%	1/10W
	R7026	1-249-385-11	CARBON	2.2	5%	1/4W
	R7045	1-216-081-00	RES-CHIP	22K	5%	1/10W
	R7046	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
	R7047	1-216-041-00	RES-CHIP	470	5%	1/10W
	R7048	1-216-041-00	RES-CHIP	470	5%	1/10W
	R7051	1-216-295-91	SHORT			
	R7052	1-216-077-91	RES-CHIP	15K	5%	1/10W
	R7053	1-216-049-11	RES-CHIP	1K	5%	1/10W

	REF. NO.	PART NO.	DESCRIPTION	VALUES		
	R7054	1-216-295-91	SHORT			
	R7055	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
	R7056	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
	R7058	1-249-429-11	CARBON	10K	5%	1/4W
	R7059	1-249-385-11	CARBON	2.2	5%	1/4W
	R7060	1-249-385-11	CARBON	2.2	5%	1/4W
	R7061	1-216-295-91	SHORT			
	R7063	1-216-689-11	RES-CHIP	39K	5%	1/10W
	R7064	1-216-049-11	RES-CHIP	1K	5%	1/10W
	R7065	1-216-041-00	RES-CHIP	470	5%	1/10W
	R7067	1-216-049-11	RES-CHIP	1K	5%	1/10W
	R7068	1-216-041-00	RES-CHIP	470	5%	1/10W
	R7070	1-216-689-11	RES-CHIP	39K	5%	1/10W
	R7071	1-216-121-11	RES-CHIP	1M	5%	1/10W
	R7083	1-249-429-11	CARBON	10K	5%	1/4W
	R7086	1-216-295-91	SHORT			
	R7088	1-216-295-91	SHORT			
	R7090	1-216-089-91	RES-CHIP	47K	5%	1/10W
	R7091	1-216-081-00	RES-CHIP	22K	5%	1/10W
	R7092	1-216-025-11	RES-CHIP	100	5%	1/10W
	R7093	1-216-025-11	RES-CHIP	100	5%	1/10W
	R7094	1-216-081-00	RES-CHIP	22K	5%	1/10W
	R7095	1-216-089-91	RES-CHIP	47K	5%	1/10W
	R7096	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
	R7097	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
	R7098	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
	R7099	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
	R7100	1-216-081-00	RES-CHIP	22K	5%	1/10W
	R7101	1-216-081-00	RES-CHIP	22K	5%	1/10W
	R7103	1-216-049-11	RES-CHIP	1K	5%	1/10W
	R7104	1-216-295-91	SHORT			

RELAY

⚠	RY6001	1-755-389-11	RELAY (AC POWER)

TRANSFORMER

⚠	T6001	1-433-404-11	TRANSFORMER, LINE FILTER
⚠	T6002	1-435-675-11	TRANSFORMER, STANDBY
	T6003	1-435-577-11	TRANSFORMER, CONVERTER (PIT)

THERMISTOR

⚠	TH6002	1-803-970-11	THERMISTOR, POSITIVE

TUNER

TU001	8-598-501-30	TUNER, FSS BTF-FA402
TU002	8-598-542-20	TUNER, FSS BTF-WA412

VARISTOR

⚠	VD6001	1-801-074-11	VARISTOR ERZV10D271

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A C

REF. NO.	PART NO.	DESCRIPTION	VALUES		
	CRYSTAL				
X201	1-760-895-21	VIBRATOR, CERAMIC			
X702	1-781-931-21	VIBRATOR, CRYSTAL			
C					
*	**A-1332-075-A**	**C MOUNTED PC BOARD**			
	7-682-647-09	SCREW+PS 3X6			
	CAPACITOR				
C9001	1-126-940-11	ELECT	330µF	20%	25V
C9002	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
C9003	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
C9004	1-162-114-00	CERAMIC	0.0047µF		2KV
C9005	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
C9006	1-163-217-11	CERAMIC CHIP	1pF	0.25pF	50V
C9007	1-163-217-11	CERAMIC CHIP	1pF	0.25pF	50V
C9008	1-163-222-11	CERAMIC CHIP	5pF	0.25pF	50V
C9009	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
C9010	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
C9011	1-161-830-00	CERAMIC	0.0047µF		500V
C9012	1-161-830-00	CERAMIC	0.0047µF		500V
C9013	1-163-035-00	CERAMIC CHIP	0.047µF		50V
C9014	1-161-830-00	CERAMIC	0.0047µF		500V
C9015	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
C9018	1-107-961-91	ELECT	10µF	20%	250V
C9019	1-163-035-00	CERAMIC CHIP	0.047µF		50V
C9020	1-107-961-91	ELECT	10µF	20%	250V
C9021	1-107-961-91	ELECT	10µF	20%	250V
C9022	1-101-004-00	CERAMIC	0.01µF		50V
C9023	1-101-004-00	CERAMIC	0.01µF		50V
C9024	1-163-035-00	CERAMIC CHIP	0.047µF		50V
C9025	1-104-653-11	ELECT	220µF	20%	16V
C9026	1-163-035-00	CERAMIC CHIP	0.047µF		50V
C9027	1-101-004-00	CERAMIC	0.01µF		50V
C9028	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C9029	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C9030	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C9031	1-162-116-00	CERAMIC	680pF	10%	2KV
C9032	1-162-116-00	CERAMIC	680pF	10%	2KV
C9033	1-107-662-11	ELECT	22µF	20%	250V
C9035	1-126-933-11	ELECT	100µF	20%	16V
C9036	1-126-964-11	ELECT	10µF	20%	50V
C9037	1-126-961-11	ELECT	2.2µF	20%	50V
C9038	1-126-963-11	ELECT	4.7µF	20%	50V
C9042	1-126-940-11	ELECT	330µF	20%	25V
C9046	1-126-933-11	ELECT	100µF	20%	16V
C9047	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
	CONNECTOR				
* CN9001	1-764-333-11	PLUG,CONNECTOR 10P			
* CN9002	1-766-242-11	PIN,CONNECTOR (PC BOARD) 4P			
CN9003	1-695-915-11	TAB (CONTACT)			
CN9004	1-695-915-11	TAB (CONTACT)			
	DIODE				
D9001	8-719-991-33	DIODE 1SS133T-77			
D9002	8-719-400-75	DIODE MA3091-TX			
D9003	8-719-991-33	DIODE 1SS133T-77			
D9005	8-719-404-50	DIODE MA111-TX			
D9006	8-719-051-85	DIODE HSS83TD			
D9007	8-719-051-85	DIODE HSS83TD			
D9008	8-719-051-85	DIODE HSS83TD			
D9009	8-719-908-03	DIODE GP08DPKG23			
D9010	8-719-110-17	DIODE MTZJ-T-77-10			
D9013	8-719-991-33	DIODE 1SS133T-77			
D9014	8-719-991-33	DIODE 1SS133T-77			
D9015	8-719-991-33	DIODE 1SS133T-77			
D9016	8-719-991-33	DIODE 1SS133T-77			
D9017	8-719-991-33	DIODE 1SS133T-77			
	IC				
IC9001	8-759-360-83	IC TDA6111Q/N4			
IC9002	8-759-360-83	IC TDA6111Q/N4			
IC9003	8-759-360-83	IC TDA6111Q/N4			
	JACK				
⚠ J9001	1-451-470-21	SOCKET, CRT			
	COIL				
L9002	1-408-591-11	INDUCTOR	1µH		
L9003	1-408-591-11	INDUCTOR	1µH		
L9004	1-408-591-11	INDUCTOR	1µH		
L9005	1-406-666-21	INDUCTOR	150µH		
L9006	1-412-525-31	INDUCTOR	10µH		
	TRANSISTOR				
Q9001	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9002	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q9003	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9004	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9008	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q9009	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9010	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9011	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9012	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q9014	8-729-823-81	TRANSISTOR 2SC4632LS-CB7			

C DH

REF. NO.	PART NO.	DESCRIPTION	VALUES		
	RESISTOR				
R9001	1-216-077-91	RES-CHIP	15K	5%	1/10W
R9004	1-249-428-11	CARBON	8.2K	5%	1/4W
R9005	1-249-421-11	CARBON	2.2K	5%	1/4W
R9006	1-249-429-11	CARBON	10K	5%	1/4W
R9007	1-208-789-11	METAL CHIP	2K	0.50%	1/10W
R9008	1-216-085-91	RES-CHIP	33K	5%	1/10W
R9009	1-249-429-11	CARBON	10K	5%	1/4W
R9010	1-249-429-11	CARBON	10K	5%	1/4W
R9012	1-249-417-11	CARBON	1K	5%	1/4W
R9013	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9014	1-249-409-11	CARBON	220	5%	1/4W
R9015	1-249-409-11	CARBON	220	5%	1/4W
R9016	1-249-409-11	CARBON	220	5%	1/4W
R9018	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R9019	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R9026	1-208-789-11	METAL CHIP	2K	0.50%	1/10W
R9031	1-208-789-11	METAL CHIP	2K	0.50%	1/10W
R9033	1-215-447-00	METAL	12K	1%	1/4W
R9034	1-215-439-00	METAL	5.6K	1%	1/4W
R9035	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R9036	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9037	1-240-233-71	METAL OXIDE	100	5%	3W
R9038	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R9039	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R9041	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9042	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9043	1-240-233-71	METAL OXIDE	100	5%	3W
R9044	1-240-233-71	METAL OXIDE	100	5%	3W
R9047	1-202-557-00	SOLID	220	20%	1/2W
R9048	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9049	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9050	1-249-424-11	CARBON	3.9K	5%	1/4W
R9051	1-202-557-00	SOLID	220	20%	1/2W
R9052	1-202-557-00	SOLID	220	20%	1/2W
R9053	1-249-424-11	CARBON	3.9K	5%	1/4W
R9054	1-249-424-11	CARBON	3.9K	5%	1/4W
R9055	1-260-126-81	CARBON	180K	5%	1/2W
R9056	1-202-549-00	SOLID	100	20%	1/2W
R9057	1-202-847-00	SOLID	560K	20%	1/2W
R9059	1-202-818-00	SOLID	1K	20%	1/2W
R9061	1-202-549-00	SOLID	100	20%	1/2W
R9062	1-260-123-11	CARBON	100K	5%	1/2W
R9063	1-260-123-11	CARBON	100K	5%	1/2W
R9064	1-260-126-81	CARBON	180K	5%	1/2W
R9065	1-249-425-11	CARBON	4.7K	5%	1/4W
R9067	1-219-769-11	CARBON	3.3M	5%	1/2W
R9068	1-216-101-00	RES-CHIP	150K	5%	1/10W
R9070	1-249-411-11	CARBON	330	5%	1/4W
R9071	1-249-411-11	CARBON	330	5%	1/4W
R9072	1-249-411-11	CARBON	330	5%	1/4W
R9073	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9076	1-219-769-11	CARBON	3.3M	5%	1/2W
R9077	1-249-417-11	CARBON	1K	5%	1/4W
R9078	1-249-427-11	CARBON	6.8K	5%	1/4W
R9079	1-249-426-11	CARBON	5.6K	5%	1/4W
R9081	1-247-843-11	CARBON	3.3K	5%	1/4W
R9083	1-249-436-11	CARBON	39K	5%	1/4W
R9084	1-260-126-81	CARBON	180K	5%	1/2W
R9085	1-260-126-81	CARBON	180K	5%	1/2W
R9089	1-215-445-00	METAL	10K	1%	1/4W
R9091	1-215-429-00	METAL	2.2K	1%	1/4W
	VARIABLE RESISTOR				
RV9001	1-241-714-11	RES, ADJ, METAL FILM	110M		
RV9002	1-241-788-11	RES, ADJ, CARBON	100K		

DH

*	**A-1333-142-A**	**DH MOUNTED PC BOARD**			
	CAPACITOR				
	C5801	1-126-964-11	ELECT	10µF	20% 50V
	C5804	1-102-129-00	CERAMIC	0.01µF	10% 50V
	C5805	1-126-964-11	ELECT	10µF	20% 50V
	C5807	1-102-129-00	CERAMIC	0.01µF	10% 50V
	C5816	1-126-964-11	ELECT	10µF	20% 50V
	C5819	1-126-960-11	ELECT	1µF	20% 50V
	C5822	1-136-165-00	FILM	0.1µF	5% 50V
	C5861	1-126-964-11	ELECT	10µF	20% 50V
	C5862	1-102-129-00	CERAMIC	0.01µF	10% 50V
	C5863	1-126-964-11	ELECT	10µF	20% 50V
	C5865	1-126-960-11	ELECT	1µF	20% 50V
	C5866	1-102-129-00	CERAMIC	0.01µF	10% 50V
	C5868	1-136-165-00	FILM	0.1µF	5% 50V
	CONNECTOR				
*	CN5802	1-564-508-11	PLUG,CONNECTOR 5P		
*	CN5803	1-564-507-11	PLUG,CONNECTOR 4P		
*	CN5861	1-564-506-11	PLUG,CONNECTOR 3P		
*	CN5862	1-564-506-11	PLUG,CONNECTOR 3P		
	DIODE				
	D5805	8-719-991-33	DIODE 1SS133T-77		
	D5860	8-719-991-33	DIODE 1SS133T-77		

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

DH D

REF. NO.	PART NO.	DESCRIPTION	VALUES		
	IC				
IC5805	8-759-822-38	IC LA6510			
IC5861	8-759-822-38	IC LA6510			
IC5870	1-418-473-11	SENSOR, MAGNETIC	MIU-212		
	TRANSISTOR				
Q5807	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q5808	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q5809	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q5810	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA			
Q5811	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q5812	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q5860	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA			
Q5861	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q5862	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q5863	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q5864	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q5865	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
	RESISTOR				
R5802	1-249-417-11	CARBON	1K	5%	1/4W
R5803	1-249-417-11	CARBON	1K	5%	1/4W
R5804	1-249-429-11	CARBON	10K	5%	1/4W
R5805	1-249-430-11	CARBON	12K	5%	1/4W
R5807	1-215-413-00	METAL	470	1%	1/4W
R5808	1-247-883-00	CARBON	150K	5%	1/4W
R5809	1-249-437-11	CARBON	47K	5%	1/4W
R5810	1-249-425-11	CARBON	4.7K	5%	1/4W
R5811	1-249-437-11	CARBON	47K	5%	1/4W
R5812	1-249-437-11	CARBON	47K	5%	1/4W
R5813	1-249-437-11	CARBON	47K	5%	1/4W
R5814	1-249-411-11	CARBON	330	5%	1/4W
R5815	1-249-437-11	CARBON	47K	5%	1/4W
R5816	1-249-437-11	CARBON	47K	5%	1/4W
R5817	1-249-437-11	CARBON	47K	5%	1/4W
R5818	1-249-437-11	CARBON	47K	5%	1/4W
R5819	1-249-437-11	CARBON	47K	5%	1/4W
R5823	1-249-395-11	CARBON	15	5%	1/4W
R5825	1-249-417-11	CARBON	1K	5%	1/4W
R5828	1-249-377-11	CARBON	0.47	5%	1/4W
R5839	1-249-429-11	CARBON	10K	5%	1/4W
R5845	1-249-425-11	CARBON	4.7K	5%	1/4W
R5846	1-249-417-11	CARBON	1K	5%	1/4W
R5847	1-247-807-31	CARBON	100	5%	1/4W
R5848	1-249-417-11	CARBON	1K	5%	1/4W
R5849	1-249-377-11	CARBON	0.47	5%	1/4W
R5852	1-249-441-11	CARBON	100K	5%	1/4W
R5854	1-249-429-11	CARBON	10K	5%	1/4W
R5860	1-247-807-31	CARBON	100	5%	1/4W
R5861	1-249-417-11	CARBON	1K	5%	1/4W
R5862	1-249-417-11	CARBON	1K	5%	1/4W
R5863	1-249-417-11	CARBON	1K	5%	1/4W
R5864	1-215-413-00	METAL	470	1%	1/4W
R5865	1-249-429-11	CARBON	10K	5%	1/4W
R5867	1-249-417-11	CARBON	1K	5%	1/4W
R5868	1-249-429-11	CARBON	10K	5%	1/4W
R5869	1-249-429-11	CARBON	10K	5%	1/4W
R5871	1-249-411-11	CARBON	330	5%	1/4W
R5873	1-249-441-11	CARBON	100K	5%	1/4W
R5874	1-249-437-11	CARBON	47K	5%	1/4W
R5876	1-249-425-11	CARBON	4.7K	5%	1/4W
R5877	1-247-883-00	CARBON	150K	5%	1/4W
R5878	1-249-425-11	CARBON	4.7K	5%	1/4W
R5879	1-249-417-11	CARBON	1K	5%	1/4W
R5882	1-249-377-11	CARBON	0.47	5%	1/4W
R5883	1-249-377-11	CARBON	0.47	5%	1/4W
R5884	1-249-395-11	CARBON	15	5%	1/4W
R5885	1-249-377-11	CARBON	0.47	5%	1/4W
R5886	1-249-385-11	CARBON	2.2	5%	1/4W
	SWITCH				
S5001	1-572-707-11	SWITCH LEVER			

D

*	**A-1348-122-A**	**D COMPLETE PC BOARD**			
	the high-voltage leads associated with the FBT on the D Board are not included and must be ordered separately. Order the following leads when requesting this D Board:				
⚠	1-251-715-32	HV CAP ASSY LEAD			
⚠	1-900-805-19	FOCUS LEAD			
	3-710-578-01	COVER, VOLUME, 6 MOLD			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	4-382-854-21	SCREW (M3X14), P, SW (+)			
	CAPACITOR				
C5001	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C5002	1-106-383-00	MYLAR	0.047µF	10%	200V
C5004	1-106-383-00	MYLAR	0.047µF	10%	200V
C5005	1-126-235-11	ELECT	100µF	20%	6.3V
C5006	1-126-964-11	ELECT	10µF	20%	50V
C5007	1-126-941-11	ELECT	470µF	20%	25V
C5008	1-126-940-11	ELECT	330µF	20%	25V
C5009	1-126-941-11	ELECT	470µF	20%	25V
C5011	1-107-641-11	ELECT	220µF	20%	160V
C5012	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C5013	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V

D

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C5015	1-107-884-11	ELECT	1000µF	20%	16V
C5016	1-136-171-00	FILM	0.33µF	5%	50V
C5017	1-115-185-11	CERAMIC CHIP	0.033µF	10%	50V
C5018	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5019	1-126-968-11	ELECT	100µF	20%	50V
C5020	1-126-767-11	ELECT	1000µF	20%	16V
C5021	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C5022	1-137-368-11	MYLAR	0.0047µF	5%	50V
C5023	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5024	1-102-038-00	CERAMIC	0.001µF	500V	
C5025	1-130-471-00	MYLAR	0.001µF	5%	50V
C5026	1-107-655-11	ELECT	47µF	20%	250V
C5027	1-126-963-11	ELECT	4.7µF	20%	50V
C5028	1-126-963-11	ELECT	4.7µF	20%	50V
C5030	1-136-153-00	FILM	0.01µF	5%	50V
C5031	1-163-011-11	CERAMIC CHIP	0.0015µF	10%	50V
C5032	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C5033	1-136-165-00	FILM	0.1µF	5%	50V
C5034	1-162-114-00	CERAMIC	0.0047µF	2KV	
C5035	1-126-933-11	ELECT	100µF	20%	16V
C5036	1-126-941-11	ELECT	470µF	20%	25V
C5037	1-107-670-11	ELECT	10µF	20%	400V
C5038	1-126-947-11	ELECT	47µF	20%	16V
C5040	1-126-935-11	ELECT	470µF	20%	16V
C5041	1-126-935-11	ELECT	470µF	20%	16V
C5043	1-126-767-11	ELECT	1000µF	20%	16V
C5044	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C5045	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C5046	1-163-025-11	CERAMIC CHIP	0.001µF		50V
C5047	1-163-025-11	CERAMIC CHIP	0.001µF		50V
C5049	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C5050	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5051	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C5052	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C5053	1-107-372-11	MYLAR	0.22µF	10%	200V
C5056	1-162-318-11	CERAMIC	0.001µF	10%	500V
C5057	1-162-134-11	CERAMIC	470pF	10%	2KV
C5058	1-162-116-00	CERAMIC	680pF	10%	2KV
C5059	1-162-116-00	CERAMIC	680pF	10%	2KV
C5060	1-137-417-11	MYLAR	0.0047µF	10%	200V
C5061	1-117-839-11	FILM	9100pF	3%	1.5KV
C5063	1-117-839-11	FILM	9100pF	3%	1.5KV
C5064	1-115-520-11	FILM	0.68µF	5%	250V
C5065	1-107-506-11	FILM	0.68µF	3%	400V
C5066	1-109-921-11	CERAMIC	0.0015µF	10%	500V
C5069	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C5070	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C5071	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C5072	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5073	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C5075	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C5076	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C5077	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C5079	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5080	1-137-372-11	MYLAR	0.022µF	5%	50V
C5081	1-137-372-11	MYLAR	0.022µF	5%	50V
C5102	1-107-888-11	ELECT	47µF	20%	25V
C5501	1-107-888-11	ELECT	47µF	20%	25V
C5502	1-126-941-11	ELECT	470µF	20%	25V
C5503	1-104-665-11	ELECT	100µF	20%	25V
C5504	1-126-947-11	ELECT	47µF	20%	16V
C5505	1-126-964-11	ELECT	10µF	20%	50V
C5506	1-126-963-11	ELECT	4.7µF	20%	50V
C5507	1-163-141-00	CERAMIC CHIP	0.001µF	5%	50V
C5508	1-163-031-91	CERAMIC CHIP	0.01µF		50V
C5509	1-163-263-11	CERAMIC CHIP	330pF	5%	50V
C5511	1-126-933-11	ELECT	100µF	20%	16V
C5514	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5518	1-129-709-61	FILM	0.0039µF	5%	630V
C5519	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C5522	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C5531	1-136-165-00	FILM	0.1µF	5%	50V
C5533	1-137-366-11	MYLAR	0.0022µF	5%	50V
C5542	1-164-182-11	CERAMIC CHIP	0.0033µF	10%	50V
C5548	1-137-194-81	FILM	0.47µF	5%	50V
C5550	1-129-716-00	FILM	0.015µF	5%	200V
C5576	1-104-666-11	ELECT	220µF	20%	25V
C5577	1-104-666-11	ELECT	220µF	20%	25V
C5587	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C5588	1-136-153-00	FILM	0.01µF	5%	50V
C5590	1-163-263-11	CERAMIC CHIP	330pF	5%	50V
C5592	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
C5594	1-136-165-00	FILM	0.1µF	5%	50V
C5596	1-126-960-11	ELECT	1µF	20%	50V
C5598	1-126-947-11	ELECT	47µF	20%	16V
C5600	1-126-947-11	ELECT	47µF	20%	16V
C5601	1-136-165-00	FILM	0.1µF	5%	50V
C5602	1-126-947-11	ELECT	47µF	20%	16V
C5603	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C5605	1-136-177-00	FILM	1µF	5%	50V
C5607	1-115-185-11	CERAMIC CHIP	0.033µF	10%	50V
C5609	1-104-665-11	ELECT	100µF	20%	25V
C5610	1-126-935-11	ELECT	470µF	20%	16V
C5611	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C5612	1-126-964-11	ELECT	10µF	20%	50V
C5613	1-115-185-11	CERAMIC CHIP	0.033µF	10%	50V

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

D

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C5614	1-126-964-11	ELECT	10µF	20%	50V
C5616	1-136-165-00	FILM	0.1µF	5%	50V
C5617	1-126-947-11	ELECT	47µF	20%	16V
C5618	1-136-171-00	FILM	0.33µF	5%	50V
C5619	1-163-127-00	CERAMIC CHIP	270pF	5%	50V
C5621	1-136-165-00	FILM	0.1µF	5%	50V
C5623	1-126-933-11	ELECT	100µF	20%	16V
C5625	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C5628	1-126-933-11	ELECT	100µF	20%	16V
C6503	1-131-940-11	ELECT	1200µF	20%	250V
C6504	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C6507	1-126-967-11	ELECT	47µF	20%	50V
C6508	1-126-947-11	ELECT	47µF	20%	25V
C6510	1-130-495-00	MYLAR	0.1µF	5%	50V
C6511	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C6516	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C6517	1-126-963-11	ELECT	4.7µF	20%	50V
C6518	1-136-479-11	FILM	0.001µF	2%	50V
C6519	1-126-964-11	ELECT	10µF	20%	50V
C6525	1-164-143-11	CERAMIC	0.001µF	10%	1KV
C6526	1-164-143-11	CERAMIC	0.001µF	10%	1KV
C6532	1-135-998-21	FILM	56000pF	3%	800V
C6544	1-107-855-12	ELECT(BLOCK)	330µF	160V	
C6545	1-126-943-11	ELECT	2200µF	20%	25V
C6546	1-128-548-11	ELECT	4700µF	20%	25V
C6547	1-113-610-11	ELECT(BLOCK)	220µF	20%	250V
C6548	1-128-549-11	ELECT	3300µF	20%	35V
C6551	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C6561	1-126-960-11	ELECT	1µF	20%	50V
⚠ C6584	1-136-344-11	MYLAR	0.047µF	20%	125V
⚠ C6585	1-119-899-51	CERAMIC	1000pF	10%	250V
C6586	1-113-924-11	CERAMIC	0.0047µF	20%	125V
C6587	1-113-924-11	CERAMIC	0.0047µF	20%	125V
C6588	1-113-924-11	CERAMIC	0.0047µF	20%	125V
C6589	1-113-924-11	CERAMIC	0.0047µF	20%	125V
C6590	1-131-940-11	ELECT	1200µF	20%	250V
⚠ C6591	1-119-899-51	CERAMIC	1000pF	10%	250V
C6594	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C6595	1-104-665-11	ELECT	100µF	20%	25V
C6596	1-126-960-11	ELECT	1µF	20%	50V
C8002	1-136-169-00	FILM	0.22µF	5%	50V
C8004	1-104-665-11	ELECT	100µF	20%	10V
C8005	1-126-947-11	ELECT	47µF	20%	25V
C8006	1-126-960-11	ELECT	1µF	20%	50V
C8007	1-137-150-11	MYLAR	0.01µF	5%	50V
C8009	1-126-964-11	ELECT	10µF	20%	50V
C8011	1-126-961-11	ELECT	2.2µF	20%	50V
C8012	1-126-966-11	ELECT	33µF	20%	50V
C8013	1-126-964-11	ELECT	10µF	20%	50V
C8014	1-126-964-11	ELECT	10µF	20%	50V
C8015	1-126-966-11	ELECT	33µF	20%	50V
C8016	1-130-495-00	MYLAR	0.1µF	5%	50V
C8017	1-126-964-11	ELECT	10µF	20%	50V
C8018	1-126-964-11	ELECT	10µF	20%	50V
C8019	1-104-665-11	ELECT	100µF	20%	10V
C8020	1-136-103-00	FILM	0.1µF	5%	200V
C8021	1-137-150-11	MYLAR	0.01µF	5%	50V
C8022	1-126-933-11	ELECT	100µF	20%	16V
C8023	1-113-611-11	ELECT(BLOCK)	820µF	20%	250V
C8024	1-126-967-11	ELECT	47µF	20%	50V
C8025	1-126-947-11	ELECT	47µF	20%	25V
C8027	1-130-495-00	MYLAR	0.1µF	5%	50V
C8028	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C8030	1-163-809-11	CERAMIC CHIP	0.047µF	10%	25V
C8031	1-128-551-11	ELECT	22µF	20%	25V
C8032	1-136-813-11	FILM	680pF	2%	50V
C8033	1-126-964-11	ELECT	10µF	20%	50V
C8035	1-125-969-91	CERAMIC	680pF	10%	1KV
C8036	1-125-969-91	CERAMIC	680pF	10%	1KV
C8037	1-135-946-21	FILM	47000pF	3%	800V
C8039	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8040	1-126-969-11	ELECT	220µF	20%	50V
C8041	1-137-194-81	FILM	0.47µF	5%	50V
C8042	1-136-103-00	FILM	0.1µF	5%	200V
C8045	1-130-471-00	MYLAR	0.001µF	5%	50V
C8046	1-162-131-11	CERAMIC	220pF	10%	2KV
C8047	1-107-444-11	CERAMIC	100pF	10%	2KV
C8048	1-130-495-00	MYLAR	0.1µF	5%	50V
C8050	1-129-718-61	FILM	0.022µF	5%	630V
C8051	1-126-964-11	ELECT	10µF	20%	50V
C8053	1-162-117-00	CERAMIC	100pF	10%	500V
C8054	1-102-244-00	CERAMIC	220pF	10%	500V
C8055	1-136-535-61	FILM	0.0018µF	5%	630V
C8056	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8058	1-137-194-81	FILM	0.47µF	5%	50V
C8059	1-126-947-11	ELECT	47µF	20%	10V
C8060	1-107-635-11	ELECT	4.7µF	20%	160V
C8063	1-135-945-21	FILM	10000pF	3%	800V

CONNECTOR

*	CN5002	1-580-798-11	CONNECTOR PIN (DY) 6P
*	CN5003	1-766-242-11	PIN,CONNECTOR (PC BOARD) 4P
*	CN5501	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P
*	CN5503	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
*	CN5505	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
	CN5506	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P
*	CN5509	1-564-515-11	PLUG,CONNECTOR 12P

	REF. NO.	PART NO.	DESCRIPTION	VALUES
*	CN5510	1-564-506-11	PLUG,CONNECTOR 3P	
*	CN6501	1-766-176-11	PIN,CONNECTOR (PC BOARD) 6P	
*	CN6502	1-766-240-11	PIN,CONNECTOR (PC BOARD) 2P	
*	CN6503	1-564-511-11	PLUG,CONNECTOR 8P	
*	CN6504	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P	
*	CN6505	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P	
*	CN6506	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P	
		DIODE		
	D5001	8-719-109-85	DIODE MTZJ-T-77-5.1B	
	D5002	8-719-908-03	DIODE GP08DPKG23	
	D5003	8-719-920-67	DIODE ERC91-02E	
	D5004	8-719-158-49	DIODE UDZ-TE-17-12B	
	D5005	8-719-404-50	DIODE MA111-TX	
	D5006	8-719-109-72	DIODE MTZJ-T-77-3.9B	
	D5007	8-719-109-51	DIODE RD2.0ES-T1B1	
	D5008	8-719-404-50	DIODE MA111-TX	
	D5009	8-719-404-50	DIODE MA111-TX	
	D5010	8-719-404-50	DIODE MA111-TX	
	D5011	8-719-109-63	DIODE RD3.0ES-T1B2	
	D5012	8-719-018-82	DIODE RGP02-20EL-6394	
	D5013	8-719-302-43	DIODE RGP10GPKG23	
	D5014	8-719-510-37	DIODE D5LC20U	
	D5015	8-719-302-43	DIODE RGP10GPKG23	
	D5016	8-719-920-67	DIODE ERC91-02E	
	D5017	8-719-920-67	DIODE ERC91-02E	
	D5018	8-719-110-41	DIODE MTZJ-T-77-15B	
	D5019	8-719-404-50	DIODE MA111-TX	
	D5021	8-719-404-50	DIODE MA111-TX	
	D5023	8-719-061-21	DIODE PG124S15	
	D5024	8-719-510-02	DIODE D1NS4-TR	
	D5025	8-719-510-02	DIODE D1NS4-TR	
	D5026	8-719-404-50	DIODE MA111-TX	
	D5027	8-719-404-50	DIODE MA111-TX	
	D5028	8-719-404-50	DIODE MA111-TX	
	D5029	8-719-404-50	DIODE MA111-TX	
	D5031	8-719-977-28	DIODE UDZSTE-1710B	
	D5032	8-719-404-50	DIODE MA111-TX	
	D5501	8-719-404-50	DIODE MA111-TX	
	D5502	8-719-404-50	DIODE MA111-TX	
	D5503	8-719-404-50	DIODE MA111-TX	
	D5505	8-719-800-76	DIODE MA153-TX	
	D5506	8-719-404-50	DIODE MA111-TX	
	D5507	8-719-800-76	DIODE MA153-TX	
	D5513	8-719-991-33	DIODE 1SS133T-77	
	D5514	8-719-063-70	DIODE D1NL20U-TA2	
	D5515	8-719-063-70	DIODE D1NL20U-TA2	
	D5522	8-719-923-78	DIODE MTZJ-T-77-12	

REF. NO.	PART NO.	DESCRIPTION	VALUES
D5523	8-719-923-78	DIODE MTZJ-T-77-12	
D6501	8-719-404-50	DIODE MA111-TX	
D6502	8-719-979-64	DIODE µF4005PKG23	
D6507	1-216-295-91	SHORT	
D6508	8-719-982-27	DIODE MTZJ-T-77-33C	
D6509	8-719-068-00	DIODE ERC04-06SE	
D6510	8-719-068-00	DIODE ERC04-06SE	
D6513	8-719-500-71	DIODE D8LC40F	
D6514	8-719-060-89	DIODE D4SBS6-F	
D6515	8-719-060-90	DIODE S2L60F	
D6516	8-719-060-89	DIODE D4SBS6-F	
D6517	8-719-060-90	DIODE S2L60F	
D6522	8-719-404-50	DIODE MA111-TX	
D6530	8-719-022-99	DIODE D6SB60L	
D6531	8-719-404-50	DIODE MA111-TX	
D6532	8-719-948-45	DIODE ERA22-08TP3	
D6533	8-719-404-50	DIODE MA111-TX	
D6537	8-719-404-50	DIODE MA111-TX	
D8002	8-719-404-50	DIODE MA111-TX	
D8003	8-719-404-50	DIODE MA111-TX	
D8004	8-719-109-85	DIODE MTZJ-T-77-5.1B	
D8005	8-719-404-50	DIODE MA111-TX	
D8006	8-719-921-89	DIODE MTZJ-T-77-13C	
D8007	8-719-404-50	DIODE MA111-TX	
D8009	8-719-404-50	DIODE MA111-TX	
D8010	8-719-052-90	DIODE D1NL40-TA2	
D8013	8-719-063-70	DIODE D1NL20U-TA2	
D8014	8-719-302-43	DIODE RGP10GPKG23	
D8016	8-719-948-45	DIODE ERA22-08TP3	
D8017	8-719-948-45	DIODE ERA22-08TP3	
D8018	8-719-052-90	DIODE D1NL40-TA2	
D8019	8-719-110-41	DIODE MTZJ-T-77-15B	
D8020	8-719-404-50	DIODE MA111-TX	
D8021	8-719-404-50	DIODE MA111-TX	
D8022	8-719-404-50	DIODE MA111-TX	
D8025	8-719-982-26	DIODE MTZJ-T-77-33B	
D8026	8-719-404-50	DIODE MA111-TX	
D8027	8-719-404-50	DIODE MA111-TX	
D8028	8-719-991-33	DIODE 1SS133T-77	
D8050	8-719-923-86	DIODE MTZJ-T-77-15	
D8051	8-719-923-86	DIODE MTZJ-T-77-15	
	FERRITE BEAD		
FB5001	1-410-397-21	FERRITE	1.1µH
FB5002	1-543-298-11	FERRITE	0µH
FB6501	1-410-397-21	FERRITE	1.1µH
FB6502	1-410-396-41	FERRITE	0.45µH
FB6504	1-410-397-21	FERRITE	1.1µH
FB6505	1-412-911-11	FERRITE	0µH
FB6506	1-412-911-11	FERRITE	0µH

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REF. NO.	PART NO.	DESCRIPTION	VALUES
FB6508	1-410-396-41	FERRITE	0.45µH
FB6509	1-410-396-41	FERRITE	0.45µH
FB8001	1-410-396-41	FERRITE	0.45µH
	IC		
IC5001	8-759-701-01	IC NJM2904M(TE2)	
IC5002	8-759-700-07	IC NJM2903M-TE2	
IC5003	8-759-518-68	IC PQ12RF21	
IC5004	8-759-192-71	IC STV9379	
IC5005	8-759-803-42	IC LA6500-FA	
IC5006	8-749-013-76	IC PQ6RD83B	
IC5007	8-759-981-61	IC NJM2901M-TE2	
IC5008	8-759-675-90	IC BA51W12ST-V5	
IC5501	6-700-149-01	IC M24C04-MN6T(A)	
IC5502	8-759-981-61	IC NJM2901M-TE2	
IC5504	8-759-803-42	IC LA6500-FA	
IC5506	8-759-803-42	IC LA6500-FA	
IC5510	8-759-803-42	IC LA6500-FA	
IC5511	8-752-074-64	IC CXA2026AS	
IC5512	8-759-929-65	IC NJM79M12FA	
IC5513	8-759-595-52	IC CXA8070AP	
IC5514	8-759-803-42	IC LA6500-FA	
IC5515	8-749-016-08	IC STK390-910	
IC6501	8-759-670-30	IC MCZ3001D	
IC6503	8-749-012-13	IC DM-58	
IC6505	8-749-921-86	IC SE-140N	
IC8001	8-759-981-61	IC NJM2901M-TE2	
IC8002	8-759-670-30	IC MCZ3001D	
IC8003	8-759-198-31	IC UPC1093J-1-T	
IC8004	8-759-701-01	IC NJM2904M(TE2)	
	CHIP CONDUCTOR		
JR5006	1-216-295-91	SHORT	
JR5007	1-216-295-91	SHORT	
JR5010	1-216-295-91	SHORT	
JR5501	1-216-295-91	SHORT	
JR6501	1-216-295-91	SHORT	
JR8001	1-216-295-91	SHORT	
JR8002	1-216-295-91	SHORT	
JR8003	1-216-295-91	SHORT	
JR8004	1-216-295-91	SHORT	
JR8005	1-216-295-91	SHORT	
JR8006	1-216-295-91	SHORT	
JR8007	1-216-295-91	SHORT	
JR8053	1-216-295-91	SHORT	
	COIL		
L5001	1-406-665-11	INDUCTOR	100µH
L5002	1-406-663-21	INDUCTOR	47µH
L5003	1-406-892-21	INDUCTOR	4MH
L5004	1-412-525-31	INDUCTOR	10µH
L5005	1-419-181-11	COIL, HORIZONTAL	LINEARITY
L5504	1-406-989-21	INDUCTOR	10MH
L5505	1-406-989-21	INDUCTOR	10MH
L5601	1-408-612-31	INDUCTOR	56µH
L6503	1-412-525-31	INDUCTOR	10µH
L6504	1-412-525-31	INDUCTOR	10µH
L6505	1-406-665-11	INDUCTOR	100µH
L8001	1-406-670-11	INDUCTOR	680µH
L8002	1-419-658-11	INDUCTOR	107µH
L8005	1-406-674-11	INDUCTOR	3.3MH
	PHOTO COUPLER		
	PH6501	8-749-924-35	PHOTO COUPLER	ON3171-R
⚠	PH6502	8-749-924-35	PHOTO COUPLER	ON3171-R
⚠	PH6503	8-749-924-35	PHOTO COUPLER	ON3171-R
	PH8001	8-749-924-35	PHOTO COUPLER	ON3171-R
	IC LINK		
⚠	PS6501	1-576-390-91	LINK, IC	
⚠	PS6502	1-576-390-91	LINK, IC	
	TRANSISTOR		
	Q5001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
	Q5002	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
	Q5003	8-729-015-28	TRANSISTOR IRFI9630G	
	Q5004	8-729-019-57	TRANSISTOR 2SA1208S-TP	
	Q5005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
	Q5006	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
	Q5007	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
	Q5008	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
	Q5011	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
	Q5012	8-729-119-80	TRANSISTOR 2SC2688-LK	
	Q5013	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
	Q5014	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
	Q5015	8-729-119-80	TRANSISTOR 2SC2688-LK	
	Q5016	8-729-119-80	TRANSISTOR 2SC2688-LK	
	Q5017	8-729-119-80	TRANSISTOR 2SC2688-LK	
	Q5018	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
	Q5019	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
	Q5020	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
	Q5021	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
	Q5022	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
	Q5023	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
	Q5026	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
	Q5027	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
	Q5028	8-729-322-27	TRANSISTOR 2SK2182	
	Q5030	8-729-052-71	TRANSISTOR 2SC3997S-SONY-RA	
	Q5031	8-729-053-24	TRANSISTOR 2SK3262-01MR	
	Q5033	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
	Q5034	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	

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REF. NO.	PART NO.	DESCRIPTION	VALUES
Q5035	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q5036	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q5037	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q5501	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q5502	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q5503	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q5504	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q5505	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q5506	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q5507	8-729-931-45	TRANSISTOR IRF614	
Q5508	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q5509	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q6503	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q6506	8-729-052-32	TRANSISTOR IRFIB7N50A-LF31	
Q6507	8-729-052-32	TRANSISTOR IRFIB7N50A-LF31	
Q6520	8-729-019-57	TRANSISTOR 2SA1208S-TP	
Q6521	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q6522	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
Q6524	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
Q6526	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q6527	8-729-023-22	TRANSISTOR 2SD2114KT146	
Q6528	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q6529	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q6530	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q6531	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q6532	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q8001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q8002	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q8003	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q8004	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q8007	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q8008	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q8009	8-729-200-17	TRANSISTOR 2SA1091O-TPE2	
Q8010	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q8013	8-729-044-42	TRANSISTOR IRFI644G-LF36	
Q8014	8-729-044-42	TRANSISTOR IRFI644G-LF36	
Q8015	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q8016	8-729-045-65	TRANSISTOR 2SA1776TV2Q	
Q8018	8-729-043-95	TRANSISTOR 2SC3840K	
Q8019	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q8020	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q8022	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q8023	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	

RESISTOR

R5001	1-216-001-00	RES-CHIP	10	5%	1/10W
R5002	1-216-033-00	RES-CHIP	220	5%	1/10W
R5003	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5004	1-216-099-00	RES-CHIP	120K	5%	1/10W
R5005	1-216-033-00	RES-CHIP	220	5%	1/10W
R5007	1-216-099-00	RES-CHIP	120K	5%	1/10W
R5008	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5009	1-216-099-00	RES-CHIP	120K	5%	1/10W
R5011	1-216-099-00	RES-CHIP	120K	5%	1/10W
R5012	1-208-814-91	METAL CHIP	22K	0.50%	1/10W
R5013	1-216-393-00	METAL OXIDE	2.2	5%	3W
R5014	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R5016	1-208-832-11	METAL CHIP	120K	0.50%	1/10W
R5017	1-208-832-11	METAL CHIP	120K	0.50%	1/10W
R5018	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5019	1-249-429-11	CARBON	10K	5%	1/4W
R5020	1-208-800-11	METAL CHIP	5.6K	0.50%	1/10W
R5021	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
R5022	1-208-816-11	METAL CHIP	27K	0.50%	1/10W
R5023	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5024	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5025	1-208-800-11	METAL CHIP	5.6K	0.50%	1/10W
R5026	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5027	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
R5028	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R5029	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5030	1-216-295-91	SHORT			
R5031	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R5033	1-216-025-11	RES-CHIP	100	5%	1/10W
R5036	1-216-085-91	RES-CHIP	33K	5%	1/10W
R5037	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5038	1-216-075-00	RES-CHIP	12K	5%	1/10W
R5039	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5040	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5041	1-249-383-11	CARBON	1.5	5%	1/4W
R5042	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5043	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5044	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5045	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5046	1-214-798-21	METAL	1.8	1%	1/2W
R5047	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5048	1-208-802-11	METAL CHIP	6.8K	0.50%	1/10W
R5049	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5050	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5051	1-249-414-11	CARBON	560	5%	1/4W
R5052	1-214-796-00	METAL	1.5	1%	1/2W
R5053	1-215-890-11	METAL OXIDE	470	5%	2W
R5054	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5055	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5056	1-216-105-91	RES-CHIP	220K	5%	1/10W
R5057	1-216-073-91	RES-CHIP	10K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5058	1-216-113-00	RES-CHIP	470K	5%	1/10W
R5059	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5063	1-208-813-11	METAL CHIP	20K	0.50%	1/10W
R5064	1-218-761-11	METAL CHIP	240K	0.50%	1/10W
R5065	1-218-761-11	METAL CHIP	240K	0.50%	1/10W
R5066	1-208-792-11	METAL CHIP	2.7K	0.50%	1/10W
R5067	1-208-794-11	METAL CHIP	3.3K	0.50%	1/10W
R5068	1-216-105-91	RES-CHIP	220K	5%	1/10W
R5069	1-216-113-00	RES-CHIP	470K	5%	1/10W
R5070	1-216-113-00	RES-CHIP	470K	5%	1/10W
R5071	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R5072	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R5073	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R5074	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R5075	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R5076	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R5077	1-208-816-11	METAL CHIP	27K	0.50%	1/10W
R5078	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R5079	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R5080	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5081	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R5082	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R5083	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R5084	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5085	1-216-113-00	RES-CHIP	470K	5%	1/10W
R5086	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5087	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5088	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5089	1-216-372-11	METAL OXIDE	1.8	5%	2W
R5090	1-216-372-11	METAL OXIDE	1.8	5%	2W
R5091	1-249-389-11	CARBON	4.7	5%	1/4W
R5092	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5093	1-208-807-11	METAL CHIP	11K	0.50%	1/10W
R5094	1-215-869-11	METAL OXIDE	1K	5%	1W
R5095	1-249-443-11	CARBON	0.47	5%	1/4W
R5096	1-249-443-11	CARBON	0.47	5%	1/4W
R5097	1-249-380-11	CARBON	0.82	5%	1/4W
R5098	1-249-379-11	CARBON	0.68	5%	1/4W
R5101	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5102	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R5103	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R5104	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5105	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5106	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5107	1-249-401-11	CARBON	47	5%	1/4W
R5108	1-208-819-11	METAL CHIP	36K	0.50%	1/10W
R5109	1-208-808-11	METAL CHIP	12K	0.50%	1/10W
R5110	1-249-401-11	CARBON	47	5%	1/4W
R5111	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5112	1-216-033-00	RES-CHIP	220	5%	1/10W
R5113	1-249-425-11	CARBON	4.7K	5%	1/4W
R5114	1-249-425-11	CARBON	4.7K	5%	1/4W
R5115	1-249-417-11	CARBON	1K	5%	1/4W
R5116	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5117	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R5120	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5121	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5122	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5123	1-216-295-91	SHORT			
R5124	1-216-295-91	SHORT			
R5125	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5126	1-216-025-11	RES-CHIP	100	5%	1/10W
R5127	1-215-890-11	METAL OXIDE	470	5%	2W
R5128	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5129	1-216-025-11	RES-CHIP	100	5%	1/10W
R5130	1-249-401-11	CARBON	47	5%	1/4W
R5131	1-208-794-11	METAL CHIP	3.3K	0.50%	1/10W
R5132	1-216-481-11	METAL OXIDE	1.2K	5%	3W
R5133	1-216-481-11	METAL OXIDE	1.2K	5%	3W
R5134	1-216-481-11	METAL OXIDE	1.2K	5%	3W
R5135	1-216-481-11	METAL OXIDE	1.2K	5%	3W
R5136	1-216-481-11	METAL OXIDE	1.2K	5%	3W
R5137	1-216-481-11	METAL OXIDE	1.2K	5%	3W
R5138	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5139	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5140	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5141	1-215-915-11	METAL OXIDE	470	5%	3W
R5142	1-216-386-11	METAL OXIDE	0.56	5%	3W
R5143	1-216-385-11	METAL OXIDE	0.47	5%	3W
R5144	1-216-385-11	METAL OXIDE	0.47	5%	3W
R5145	1-215-880-00	METAL OXIDE	10	5%	2W
R5146	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5147	1-208-794-11	METAL CHIP	3.3K	0.50%	1/10W
R5148	1-215-865-11	METAL OXIDE	220	5%	1W
R5149	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5150	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5151	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5152	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5153	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5154	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5155	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5156	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5157	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5158	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5159	1-216-025-11	RES-CHIP	100	5%	1/10W
R5160	1-216-025-11	RES-CHIP	100	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5161	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5163	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R5164	1-260-288-11	CARBON	0.47	5%	1/2W
R5501	1-216-033-00	RES-CHIP	220	5%	1/10W
R5502	1-216-295-91	SHORT			
R5503	1-216-017-91	RES-CHIP	47	5%	1/10W
R5504	1-208-840-11	METAL CHIP	270K	0.50%	1/10W
R5505	1-208-840-11	METAL CHIP	270K	0.50%	1/10W
R5506	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5507	1-216-017-91	RES-CHIP	47	5%	1/10W
R5508	1-216-025-11	RES-CHIP	100	5%	1/10W
R5509	1-216-025-11	RES-CHIP	100	5%	1/10W
R5510	1-216-025-11	RES-CHIP	100	5%	1/10W
R5511	1-216-295-91	SHORT			
R5512	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5513	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5514	1-216-295-91	SHORT			
R5516	1-208-792-11	METAL CHIP	2.7K	0.50%	1/10W
R5518	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R5519	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R5520	1-208-816-11	METAL CHIP	27K	0.50%	1/10W
R5521	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5522	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5523	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R5525	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R5526	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5527	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5528	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5529	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5530	1-216-025-11	RES-CHIP	100	5%	1/10W
R5531	1-216-001-00	RES-CHIP	10	5%	1/10W
R5532	1-216-001-00	RES-CHIP	10	5%	1/10W
R5535	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R5536	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R5544	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R5545	1-208-818-11	METAL CHIP	33K	0.50%	1/10W
R5547	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5548	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5554	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R5563	1-208-801-11	METAL CHIP	6.2K	0.50%	1/10W
R5564	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R5565	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R5573	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5576	1-249-395-11	CARBON	15	5%	1/4W
R5577	1-208-836-11	METAL CHIP	180K	0.50%	1/10W
R5578	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R5579	1-216-113-00	RES-CHIP	470K	5%	1/10W
R5581	1-208-806-11	METAL CHIP	10K	0.50%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R5585	1-208-846-11	METAL CHIP	470K	0.50%	1/10W
R5588	1-216-353-00	METAL OXIDE	2.2	5%	1W
R5599	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5615	1-249-395-11	CARBON	15	5%	1/4W
R5623	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5645	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5647	1-208-758-11	METAL CHIP	100	0.50%	1/10W
R5648	1-216-385-11	METAL OXIDE	0.47	5%	3W
R5649	1-215-886-11	METAL OXIDE	100	5%	2W
R5650	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5657	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5666	1-216-091-00	RES-CHIP	56K	5%	1/10W
R5669	1-208-789-11	METAL CHIP	2K	0.50%	1/10W
R5670	1-208-820-11	METAL CHIP	39K	0.50%	1/10W
R5672	1-216-109-00	RES-CHIP	330K	5%	1/10W
R5678	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W
R5679	1-249-395-11	CARBON	15	5%	1/4W
R5680	1-249-383-11	CARBON	1.5	5%	1/4W
R5684	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5685	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R5686	1-208-778-11	METAL CHIP	680	0.50%	1/10W
R5688	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R5689	1-216-017-91	RES-CHIP	47	5%	1/10W
R5690	1-216-017-91	RES-CHIP	47	5%	1/10W
R5692	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R5693	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5694	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5696	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W
R5697	1-208-764-11	METAL CHIP	180	0.50%	1/10W
R5698	1-208-801-11	METAL CHIP	6.2K	0.50%	1/10W
R5699	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5700	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R5702	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R5704	1-214-657-11	METAL	1	1%	1/4W
R5705	1-214-657-11	METAL	1	1%	1/4W
R5707	1-216-017-91	RES-CHIP	47	5%	1/10W
R5708	1-216-429-00	METAL OXIDE	270	5%	1W
R5709	1-216-017-91	RES-CHIP	47	5%	1/10W
R5710	1-216-429-00	METAL OXIDE	270	5%	1W
R5711	1-260-288-11	CARBON	0.47	5%	1/2W
R5712	1-260-288-11	CARBON	0.47	5%	1/2W
R5713	1-215-867-00	METAL OXIDE	470	5%	1W
R5714	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5715	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5716	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5717	1-216-093-91	RES-CHIP	68K	5%	1/10W
R6501	1-208-757-11	METAL CHIP	91	0.50%	1/10W

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R6502	1-260-131-11	CARBON	470K	5%	1/2W
R6503	1-208-758-11	METAL CHIP	100	0.50%	1/10W
R6504	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6506	1-249-377-11	CARBON	0.47	5%	1/4W
R6507	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6508	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6509	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6510	1-215-859-00	METAL OXIDE	22	5%	1W
R6511	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6512	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6513	1-215-481-00	METAL	330K	1%	1/4W
R6514	1-215-481-00	METAL	330K	1%	1/4W
R6515	1-260-131-11	CARBON	470K	5%	1/2W
⚠ R6516	1-202-962-11	CEMENTED	3.3	5%	10W
R6517	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W
R6518	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R6519	1-216-295-91	SHORT			
R6521	1-260-328-11	CARBON	1K	5%	1/2W
R6522	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6523	1-216-081-00	RES-CHIP	22K	5%	1/10W
R6524	1-216-295-91	SHORT			
R6525	1-216-041-00	RES-CHIP	470	5%	1/10W
R6526	1-202-933-61	FUSIBLE	0.1	10%	1/2W
R6527	1-216-093-91	RES-CHIP	68K	5%	1/10W
R6528	1-216-025-11	RES-CHIP	100	5%	1/10W
R6529	1-249-393-11	CARBON	10	5%	1/4W
R6530	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6531	1-249-393-11	CARBON	10	5%	1/4W
R6532	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6533	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6534	1-216-085-91	RES-CHIP	33K	5%	1/10W
R6535	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6536	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6537	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6538	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6539	1-215-900-11	METAL OXIDE	22K	5%	2W
R6540	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6541	1-216-077-91	RES-CHIP	15K	5%	1/10W
R6542	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6543	1-208-842-11	METAL CHIP	330K	0.50%	1/10W
R6544	1-216-295-91	SHORT			
R6547	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R6550	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6552	1-216-081-00	RES-CHIP	22K	5%	1/10W
R6553	1-216-109-00	RES-CHIP	330K	5%	1/10W
R6556	1-217-625-00	METAL	0.05	10%	2W
R6557	1-216-097-11	RES-CHIP	100K	5%	1/10W
R6583	1-216-077-91	RES-CHIP	15K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
⚠ R6590	1-249-415-11	CARBON	680	5%	1/4W
R6591	1-216-341-11	METAL OXIDE	0.22	5%	1W
R6593	1-249-405-11	CARBON	100	5%	1/4W
R6596	1-215-445-00	METAL	10K	1%	1/4W
R6597	1-215-469-00	METAL	100K	1%	1/4W
R6598	1-216-342-21	METAL OXIDE	0.27	5%	1W
R6599	1-249-417-11	CARBON	1K	5%	1/4W
R6600	1-215-445-00	METAL	10K	1%	1/4W
R6602	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6603	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6604	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6605	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6612	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6614	1-260-298-51	CARBON	3.3	5%	1/2W
R6646	1-215-481-00	METAL	330K	1%	1/4W
R8001	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8002	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R8003	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8004	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8005	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8006	1-216-105-91	RES-CHIP	220K	5%	1/10W
R8007	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8008	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8009	1-216-105-91	RES-CHIP	220K	5%	1/10W
R8010	1-216-105-91	RES-CHIP	220K	5%	1/10W
R8011	1-216-105-91	RES-CHIP	220K	5%	1/10W
R8013	1-216-295-91	SHORT			
R8016	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R8017	1-216-295-91	SHORT			
R8018	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8019	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8020	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8021	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8022	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8023	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8024	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8025	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
R8026	1-216-105-91	RES-CHIP	220K	5%	1/10W
R8027	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
R8028	1-208-818-11	METAL CHIP	33K	0.50%	1/10W
R8029	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
R8030	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R8031	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R8032	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8033	1-208-781-11	METAL CHIP	910	0.50%	1/10W
R8034	1-216-091-00	RES-CHIP	56K	5%	1/10W
⚠ R8035	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W
⚠ R8036	1-215-444-00	METAL	9.1K	1%	1/4W

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

A component identified by this ⋈ symbol indicates that it has been carefully factory-selected to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
⚠ R8037	1-215-444-00	METAL	9.1K	1%	1/4W
⚠ R8038	1-215-444-00	METAL	9.1K	1%	1/4W
⚠ R8039	1-215-444-00	METAL	9.1K	1%	1/4W
⚠ R8040	1-215-444-00	METAL	9.1K	1%	1/4W
R8041	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R8042	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R8043	1-216-349-00	METAL OXIDE	1	5%	1W
R8044	1-208-837-11	METAL CHIP	200K	0.50%	1/10W
R8047	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8049	1-208-758-11	METAL CHIP	100	0.50%	1/10W
R8050	1-211-964-11	METAL CHIP	33	0.50%	1/10W
R8051	1-220-926-11	FUSIBLE	0.47	10%	1/2W
R8053	1-208-842-11	METAL CHIP	330K	0.50%	1/10W
R8054	1-208-842-11	METAL CHIP	330K	0.50%	1/10W
R8055	1-208-842-11	METAL CHIP	330K	0.50%	1/10W
R8056	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W
R8057	1-208-809-11	METAL CHIP	13K	0.50%	1/10W
R8058	1-249-393-11	CARBON	10	5%	1/4W
R8059	1-216-295-91	SHORT			
R8060	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R8061	1-249-393-11	CARBON	10	5%	1/4W
R8062	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8063	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8065	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8066	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8068	1-216-295-91	SHORT			
R8069	1-249-419-11	CARBON	1.5K	5%	1/4W
R8070	1-217-611-00	METAL	0.1	10%	2W
R8071	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8072	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R8073	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R8074	1-208-793-11	METAL CHIP	3K	0.50%	1/10W
R8077	1-208-838-91	METAL CHIP	220K	0.50%	1/10W
R8078	1-208-838-91	METAL CHIP	220K	0.50%	1/10W
R8080	1-249-431-11	CARBON	15K	5%	1/4W
R8081	1-249-377-11	CARBON	0.47	5%	1/4W
R8082	1-216-133-91	RES-CHIP	3.3M	5%	1/10W
R8085	1-219-749-91	CARBON	10K	5%	1/2W
R8086	1-219-751-91	CARBON	47K	5%	1/2W
R8087	1-216-295-91	SHORT			
R8089	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8091	1-215-485-00	METAL	470K	1%	1/4W
R8093	1-216-101-00	RES-CHIP	150K	5%	1/10W
R8095	1-215-485-00	METAL	470K	1%	1/4W
R8096	1-216-295-91	SHORT			
R8098	1-249-441-11	CARBON	100K	5%	1/4W
R8099	1-249-441-11	CARBON	100K	5%	1/4W
R8100	1-249-441-11	CARBON	100K	5%	1/4W
R8101	1-216-101-00	RES-CHIP	150K	5%	1/10W
R8102	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8103	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R8104	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8108	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8109	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R8111	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R8112	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8113	1-216-117-00	RES-CHIP	680K	5%	1/10W
R8114	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R8115	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8116	1-216-486-21	METAL OXIDE	8.2K	5%	3W
R8117	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8118	1-216-085-91	RES-CHIP	33K	5%	1/10W
R8119	1-216-486-21	METAL OXIDE	8.2K	5%	3W
R8123	1-216-025-11	RES-CHIP	100	5%	1/10W
R8124	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8125	1-216-001-00	RES-CHIP	10	5%	1/10W
R8126	1-216-001-00	RES-CHIP	10	5%	1/10W
R8127	1-216-295-91	SHORT			
R8137	1-249-417-11	CARBON	1K	5%	1/4W
R8144	1-216-025-11	RES-CHIP	100	5%	1/10W
R8145	1-216-025-11	RES-CHIP	100	5%	1/10W
R8146	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8147	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
R8148	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
R8149	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R8150	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8151	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8152	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8199	1-249-389-11	CARBON	4.7	5%	1/4W

VARIABLE RESISTOR

⚠⋈ RV8001	1-225-630-91	RES, VAR, ADJ, CERMET	20K
⚠⋈ RV8002	1-225-627-91	RES, VAR, ADJ, CERMET	2K

RELAY

⚠ RY6501	1-755-395-11	RELAY (AC POWER)
⚠ RY6502	1-755-214-11	RELAY, AC POWER

SPARK GAP

SG8002	1-517-499-21	GAP, SPARK
SG8005	1-517-499-21	GAP, SPARK

TRANSFORMER

T5001	1-435-621-11	TRANSFORMER, HORIZONTAL OUTPUT
T5002	1-435-636-11	TRANSFORMER, HORIZONTAL DRIVE
⚠ T6501	1-435-576-12	TRANSFORMER, CONVERTER (PIT)
⚠ T8001	1-453-350-21	FBT ASSY NX-6000//J1C4
T8002	1-433-934-11	TRANSFORMER, FERRITE (DFT)

D HB U

REF. NO.	PART NO.	DESCRIPTION	VALUES		
	THERMISTOR				
TH5001	1-800-193-00	THERMISTOR			
TH5002	1-807-796-11	THERMISTOR			

HB

*	**A-1372-904-A**	**HB(COM) MOUNTED PC BOARD**				
	CAPACITOR					
C4504	1-126-964-11	ELECT	10µF	20%	50V	
C4505	1-126-964-11	ELECT	10µF	20%	50V	
	CONNECTOR					
CN4503	1-764-334-11	PLUG,CONNECTOR 11P				
	DIODE					
D4503	8-719-977-28	DIODE UDZSTE-1710B				
D4505	8-719-977-28	DIODE UDZSTE-1710B				
D4506	8-719-977-28	DIODE UDZSTE-1710B				
	FILTER					
FL4501	1-239-583-21	FILTER, EMI				
FL4502	1-239-583-21	FILTER, EMI				
FL4503	1-239-583-21	FILTER, EMI				
	JACK					
J4501	1-770-053-11	TERMINAL	BLOCK, S(LIGHT ANGLE)			
	RESISTOR					
R4506	1-216-113-00	RES-CHIP	470K	5%	1/10W	
R4507	1-216-113-00	RES-CHIP	470K	5%	1/10W	
R4509	1-216-049-11	RES-CHIP	1K	5%	1/10W	
R4511	1-216-295-91	SHORT				
R4512	1-216-295-91	SHORT				
R4513	1-216-295-91	SHORT				

U

*	**A-1373-817-A**	**U (COM) MOUNTED PC BOARD**				
	CAPACITOR					
C2405	1-126-964-11	ELECT	10µF	20%	50V	
C2406	1-126-791-11	ELECT	10µF	20%	16V	
C2407	1-126-964-11	ELECT	10µF	20%	50V	
C2408	1-126-791-11	ELECT	10µF	20%	16V	
C2409	1-126-964-11	ELECT	10µF	20%	50V	
C2410	1-126-964-11	ELECT	10µF	20%	50V	
C2411	1-126-926-11	ELECT	1000µF	20%	10V	
C2412	1-126-964-11	ELECT	10µF	20%	50V	
C2413	1-126-964-11	ELECT	10µF	20%	50V	
C2414	1-126-791-11	ELECT	10µF	20%	16V	
C2415	1-126-964-11	ELECT	10µF	20%	50V	
	CONNECTOR					
* CN2401	1-785-303-11	CONNECTOR, DIN (PLUG) 64P				
	DIODE					
D2401	8-719-977-28	DIODE UDZSTE-1710B				
D2402	8-719-977-28	DIODE UDZSTE-1710B				
D2403	8-719-977-28	DIODE UDZSTE-1710B				
D2405	8-719-977-28	DIODE UDZSTE-1710B				
D2406	8-719-977-28	DIODE UDZSTE-1710B				
D2407	8-719-977-28	DIODE UDZSTE-1710B				
D2409	8-719-977-28	DIODE UDZSTE-1710B				
D2410	8-719-800-76	DIODE MA153-TX				
D2411	8-719-977-28	DIODE UDZSTE-1710B				
D2412	8-719-800-76	DIODE MA153-TX				
D2413	8-719-800-76	DIODE MA153-TX				
D2414	8-719-800-76	DIODE MA153-TX				
D2415	8-719-800-76	DIODE MA153-TX				
D2416	8-719-800-76	DIODE MA153-TX				
D2423	8-719-800-76	DIODE MA153-TX				
D2424	8-719-800-76	DIODE MA153-TX				
D2425	8-719-800-76	DIODE MA153-TX				
D2426	8-719-800-76	DIODE MA153-TX				
D2427	8-719-800-76	DIODE MA153-TX				
D2428	8-719-800-76	DIODE MA153-TX				
D2429	8-719-977-28	DIODE UDZSTE-1710B				
D2430	8-719-977-28	DIODE UDZSTE-1710B				
D2431	8-719-977-28	DIODE UDZSTE-1710B				
D2432	8-719-977-28	DIODE UDZSTE-1710B				
D2433	8-719-977-28	DIODE UDZSTE-1710B				
D2434	8-719-977-28	DIODE UDZSTE-1710B				
	JACK					
J2401	1-573-967-12	BLOCK, (S) TERMINAL				
J2402	1-750-517-11	JACK BLOCK, PIN 3P				
J2403	1-750-517-11	JACK BLOCK, PIN 3P				
J2405	1-764-143-11	JACK				
J2406	1-764-143-11	JACK				
J2407	1-774-358-11	JACK BLOCK, PIN				
J2408	1-774-358-11	JACK BLOCK, PIN				
J2409	1-750-516-11	JACK BLOCK, PIN 2P				
	RESISTOR					
R2401	1-216-113-00	RES-CHIP	470K	5%	1/10W	
R2402	1-216-113-00	RES-CHIP	470K	5%	1/10W	
R2403	1-216-113-00	RES-CHIP	470K	5%	1/10W	
R2407	1-216-113-00	RES-CHIP	470K	5%	1/10W	

UHAS

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R2408	1-216-113-00	RES-CHIP	470K	5%	1/10W
R2409	1-216-113-00	RES-CHIP	470K	5%	1/10W
R2428	1-216-113-00	RES-CHIP	470K	5%	1/10W
R2430	1-216-113-00	RES-CHIP	470K	5%	1/10W
R2431	1-216-113-00	RES-CHIP	470K	5%	1/10W
R2432	1-216-113-00	RES-CHIP	470K	5%	1/10W
R2433	1-216-113-00	RES-CHIP	470K	5%	1/10W
R2434	1-216-021-00	RES-CHIP	68	5%	1/10W
R2435	1-216-295-91	SHORT			
R2436	1-216-295-91	SHORT			

HA

*		**A-1377-021-A**	**HA MOUNTED PC BOARD**			
		CAPACITOR				
	C05	1-126-964-11	ELECT	10µF	20%	50V
		CONNECTOR				
*	CN01	1-564-515-11	PLUG,CONNECTOR	12P		
		DIODE				
	D01	8-719-070-80	DIODE LNK0120022G			
	D02	8-719-070-80	DIODE LNK0120022G			
	D07	8-719-109-89	DIODE RD5.6ES-T1B2			
		IC				
	IC101	8-742-212-20	HYB IC SBX3081-71			
		RESISTOR				
	R03	1-249-429-11	CARBON	10K	5%	1/4W
	R05	1-247-807-31	CARBON	100	5%	1/4W
	R07	1-249-409-11	CARBON	220	5%	1/4W
	R08	1-249-409-11	CARBON	220	5%	1/4W
	R09	1-249-433-11	CARBON	22K	5%	1/4W
	R11	1-249-385-11	CARBON	2.2	5%	1/4W
	R12	1-215-445-00	METAL	10K	1%	1/4W
	R14	1-215-437-00	METAL	4.7K	1%	1/4W
	R15	1-215-431-00	METAL	2.7K	1%	1/4W
	R16	1-215-427-00	METAL	1.8K	1%	1/4W
	R17	1-215-425-00	METAL	1.5K	1%	1/4W
	R18	1-215-421-00	METAL	1K	1%	1/4W
	R19	1-215-419-00	METAL	820	1%	1/4W
	R20	1-215-415-00	METAL	560	1%	1/4W
	R21	1-215-413-00	METAL	470	1%	1/4W
	R22	1-215-413-00	METAL	470	1%	1/4W
	R23	1-249-385-11	CARBON	2.2	5%	1/4W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
	SWITCH				
S02	1-762-837-11	SWITCH TACTILE			
S03	1-762-837-11	SWITCH TACTILE			
S04	1-762-837-11	SWITCH TACTILE			
S05	1-762-837-11	SWITCH TACTILE			
S06	1-692-431-21	SWITCH TACTILE			
S07	1-692-431-21	SWITCH TACTILE			
S08	1-692-431-21	SWITCH TACTILE			
S09	1-692-431-21	SWITCH TACTILE			
S10	1-692-431-21	SWITCH TACTILE			
S11	1-692-431-21	SWITCH TACTILE			
S12	1-692-431-21	SWITCH TACTILE			

S

*		**A-1391-048-A**	**S MOUNTED PC BOARD**			
		CAPACITOR				
	C4101	1-126-964-11	ELECT	10µF	20%	50V
	C4102	1-126-964-11	ELECT	10µF	20%	50V
	C4103	1-126-959-11	ELECT	0.47µF	20%	50V
	C4104	1-126-959-11	ELECT	0.47µF	20%	50V
	C4105	1-126-968-11	ELECT	100µF	20%	50V
	C4106	1-126-968-11	ELECT	100µF	20%	50V
	C4107	1-115-339-11	CERAMIC CHIP	0.1µF	10%	50V
	C4108	1-126-964-11	ELECT	10µF	20%	50V
	C4109	1-126-964-11	ELECT	10µF	20%	50V
	C4110	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
	C4111	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
	C4112	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
	C4113	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
	C4114	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
	C4115	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
	C4116	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
	C4117	1-126-968-11	ELECT	100µF	20%	50V
		CONNECTOR				
	CN4101	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P			
		DIODE				
	D4101	8-719-914-43	DIODE DAN202K-T-146			
	D4102	8-719-914-44	DIODE DAP202K-T-146			
		IC				
	IC4101	8-759-686-15	IC NJM2180M (TE2)			
	IC4102	8-759-711-10	IC NJU4066BM-T1			
	IC4103	8-752-058-68	IC CXA1315M-T4			

SW

REF. NO.	PART NO.	DESCRIPTION	VALUES		
	COIL				
L4101	1-408-607-31	INDUCTOR	22µH		
	RESISTOR				
R4101	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R4102	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R4103	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R4104	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R4105	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4106	1-216-097-11	RES-CHIP	100K	5%	1/10W
R4107	1-216-097-11	RES-CHIP	100K	5%	1/10W
R4108	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R4109	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R4110	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R4111	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4112	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4113	1-216-091-00	RES-CHIP	56K	5%	1/10W
R4114	1-216-295-91	SHORT			
R4115	1-216-295-91	SHORT			
R4116	1-216-089-91	RES-CHIP	47K	5%	1/10W
R4117	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4118	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R4119	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4120	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4121	1-216-077-91	RES-CHIP	15K	5%	1/10W
R4123	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4124	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4125	1-216-101-00	RES-CHIP	150K	5%	1/10W
R4126	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4127	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4128	1-216-091-00	RES-CHIP	56K	5%	1/10W
R4129	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4130	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4131	1-216-129-00	RES-CHIP	2.2M	5%	1/10W
R4132	1-216-085-91	RES-CHIP	33K	5%	1/10W
R4133	1-216-092-00	RES-CHIP	62K	5%	1/10W
R4134	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4135	1-216-017-91	RES-CHIP	47	5%	1/10W
R4136	1-216-017-91	RES-CHIP	47	5%	1/10W

W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
*	**A-1372-833-A**	**W MOUNTED PC BOARD**			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	CAPACITOR				
C9101	1-107-364-11	MYLAR	0.01µF	10%	200V
C9102	1-107-364-11	MYLAR	0.01µF	10%	200V
C9103	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C9104	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C9105	1-104-999-11	MYLAR	0.1µF	10%	200V
C9106	1-107-667-11	ELECT	2.2µF	20%	160V
C9107	1-126-935-11	ELECT	470µF	20%	16V
C9108	1-126-935-11	ELECT	470µF	20%	16V
C9109	1-107-963-11	ELECT	33µF	20%	160V
C9112	1-126-933-11	ELECT	100µF	20%	16V
C9113	1-126-933-11	ELECT	100µF	20%	16V
C9115	1-126-935-11	ELECT	470µF	20%	6.3V
C9116	1-126-935-11	ELECT	470µF	20%	6.3V
C9117	1-104-999-11	MYLAR	0.1µF	10%	200V
	CONNECTOR				
* CN9101	1-564-506-11	PLUG,CONNECTOR 3P			
* CN9102	1-564-515-11	PLUG,CONNECTOR 12P			
* CN9103	1-564-506-11	PLUG,CONNECTOR 3P			
* CN9104	1-770-747-11	CONNECTOR, BOARD TO BOARD 12P			
	DIODE				
D9101	8-719-924-11	DIODE MTZJ-T-77-22			
D9102	8-719-924-11	DIODE MTZJ-T-77-22			
D9103	8-719-404-50	DIODE MA111-TX			
D9104	8-719-404-50	DIODE MA111-TX			
D9105	8-719-404-50	DIODE MA111-TX			
D9106	8-719-404-50	DIODE MA111-TX			
D9107	8-719-510-02	DIODE D1NS4-TR			
	COIL				
L9101	1-412-525-31	INDUCTOR	10µH		
	TRANSISTOR				
Q9101	8-729-045-05	TRANSISTOR 2SA2005			
Q9102	8-729-045-04	TRANSISTOR 2SC5511			
Q9103	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9104	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
Q9105	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q9106	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9107	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR			
Q9108	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			

W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
	RESISTOR				
R9102	1-249-414-11	CARBON	560	5%	1/4W
R9103	1-249-432-11	CARBON	18K	5%	1/4W
R9104	1-249-432-11	CARBON	18K	5%	1/4W
R9105	1-249-414-11	CARBON	560	5%	1/4W
R9106	1-249-421-11	CARBON	2.2K	5%	1/4W
R9107	1-249-421-11	CARBON	2.2K	5%	1/4W
R9108	1-260-316-51	CARBON	100	5%	1/2W
R9109	1-249-385-11	CARBON	2.2	5%	1/4W
R9110	1-249-385-11	CARBON	2.2	5%	1/4W
R9111	1-249-405-11	CARBON	100	5%	1/4W
R9112	1-215-915-11	METAL OXIDE	470	5%	3W
R9113	1-216-017-91	RES-CHIP	47	5%	1/10W
R9114	1-249-425-11	CARBON	4.7K	5%	1/4W
R9115	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R9117	1-216-047-91	RES-CHIP	820	5%	1/10W
R9118	1-249-405-11	CARBON	100	5%	1/4W
R9119	1-249-399-11	CARBON	33	5%	1/4W
R9120	1-247-807-31	CARBON	100	5%	1/4W
R9121	1-249-409-11	CARBON	220	5%	1/4W
R9122	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R9123	1-249-401-11	CARBON	47	5%	1/4W
R9124	1-249-401-11	CARBON	47	5%	1/4W
R9125	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9126	1-249-395-11	CARBON	15	5%	1/4W
R9127	1-216-005-00	RES-CHIP	15	5%	1/10W
R9128	1-216-295-91	SHORT			

REF. NO.	PART NO.	DESCRIPTION	VALUES
	ACCESSORIES AND PACKAGING		
*	4-041-426-01	BAG, PROTECTION	
	4-042-463-01	SHEET, PROTECTION	
	4-085-012-21	MANUAL, INSTRUCTION (KV-40XBR700)	
	4-085-012-31	MANUAL, INSTRUCTION (KV-40XBR700-CND)	
*	4-082-895-01	CUSHION, LOWER	
*	4-082-894-01	CUSHION, UPPER	
*	4-396-077-01	JOINT	
	REMOTE COMMANDER		
	1-476-683-11	REMOTE COMMANDER (RM-Y184)	
	4-081-888-11	BATTERY COVER FOR (RM-Y184)	

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Sony Technology Center
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SONY

4-085-012-21

FD Trinitron

WEGA™

XBR

Operating Instructions

KV-32XBR450 KV-36XBR450 KV-40XBR700

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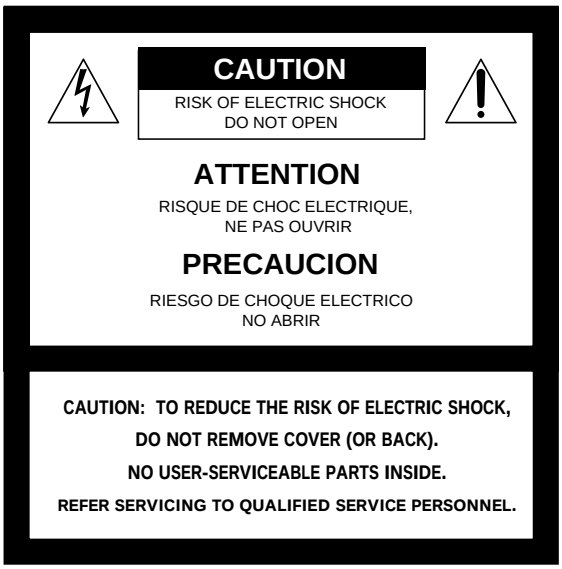
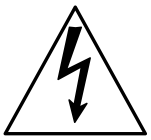
WARNING

To reduce the risk of fire or shock hazard, do not expose the TV to rain or moisture.





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

CAUTION

When using TV games, computers, and similar products with your TV, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern is left on the screen for long periods of time at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. Continuously watching the same program can cause the imprint of station logos onto the TV screen. These types of imprints are not covered by your warranty because they are the result of misuse.

Note on Caption Vision

This television receiver provides display of television closed captioning in accordance with §15.119 of the FCC rules.

Note on Cleaning the TV

Clean the TV with a soft dry cloth. Never use strong solvents such as thinner or benzine, which might damage the finish of the cabinet.

Note to CATV System Installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster / cable company and / or program owner.

NOTIFICATION

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ❑ Reorient or relocate the receiving antennas.
- ❑ Increase the separation between the equipment and receiver.
- ❑ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ❑ Consult the dealer or an experienced radio / TV technician for help.

  You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Safety

- ❑ Operate the TV only on 120 V AC.
- ❑ The plug is designed, for safety purposes, to fit into the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- ❑ If any liquid or solid object should fall inside the cabinet, unplug the TV immediately and have it checked by qualified service personnel before operating it further.

Installing

- ❑ To prevent internal heat buildup, do not block the ventilation openings.
- ❑ Do not install the TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- ❑ The AC power cord is attached to the rear of the TV with hooks. Do not attempt to remove the cord from these hooks. Doing so could cause damage to the TV.

As an ENERGY STAR® Partner, Sony has determined that this product or product models meets the ENERGY STAR® guidelines for energy efficiency.

ENERGY STAR® is a U.S. registered mark.

XBR

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Owner's Record

The model and serial numbers are provided on the front of this instruction manual and at the rear of the TV. Refer to them whenever you call upon your Sony dealer regarding this product.

Important Safeguards

For your protection, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the set or described in the operating instructions or service manual.

WARNING

To guard against injury, the following basic safety precautions should be observed in the installation, use and servicing of the set.

Use

Power Sources

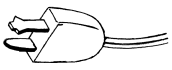
This set should be operated only from the type of power source indicated on the serial/model plate. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, refer to the operating instructions.

Grounding or Polarization

This set is equipped with a polarized AC power cord plug (a plug having one blade wider than the other), or with a three-wire grounding type plug (a plug having a third pin for grounding). Follow the instructions below:

For the set with a polarized AC power cord plug

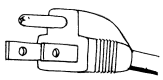
This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the polarized plug by forcing it in.



Alternate Warning

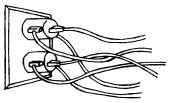
For the set with a three-wire grounding type AC plug

This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to have a suitable outlet installed. Do not defeat the safety purpose of the grounding plug.



Overloading

Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.



Always turn the set off when it is not being used. When the set is left unattended and unused for long periods of time, unplug it from the wall outlet as a precaution against the possibility of an internal malfunction that could create a fire hazard.

If a snapping or popping sound from a TV set is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off.

Object and Liquid Entry

Never push objects of any kind into the set through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.

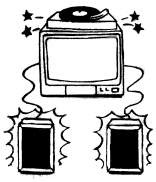
Cleaning

Unplug the set from the wall outlet before cleaning or polishing it. Do not use liquid cleaners or aerosol cleaners. Use a cloth lightly dampened with water for cleaning the exterior of the set.

Installation

Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.



Water and Moisture

Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.

Accessories

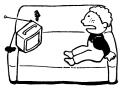
Do not place the set on an unstable cart, stand, table or shelf. The set may fall, causing serious injury to a child or an adult and serious damage to the set. Use only a cart or stand recommended by Sony for the specific model of TV. No part of the TV set should overhang any edge of the TV cart or stand; any overhanging edge is a safety hazard. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

Ventilation

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

- ❑ Never cover the slots and openings with a cloth or other materials.

- ❑ Never block the slots and openings by placing the set on a bed, sofa, rug or other similar surface.



- ❑ Never place the set in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.

- ❑ Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.

Power-Cord Protection

Do not allow anything to rest on or roll over the power cord, and do not place the set where the power cord is subject to wear or abuse.

Antennas

Outdoor Antenna Grounding

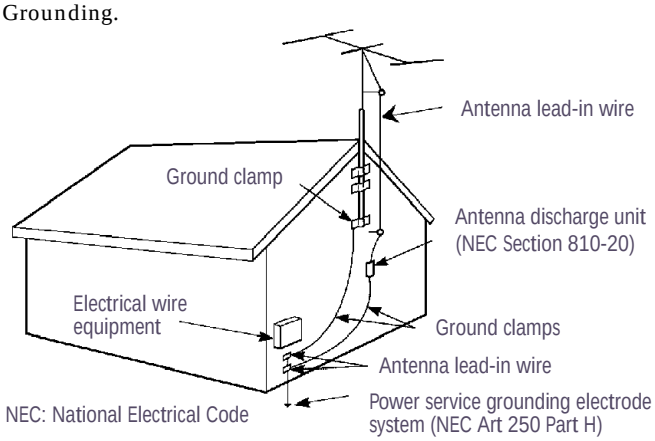
If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code (NEC) in USA and Section 54 of the Canadian Electrical Code in Canada provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Antenna Grounding According to the NEC

Refer to section 54-300 of Canadian Electrical Code for Antenna Grounding.



Lightning

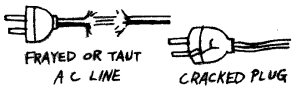
For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power-line surges.

Service

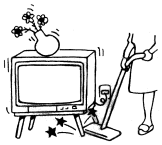
Damage Requiring Service

Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- ❑ When the power cord or plug is damaged or frayed.



- ❑ If liquid has been spilled into the set.



- ❑ If the set has been exposed to rain or water.

- ❑ If the set has been subject to excessive shock by being dropped, or the cabinet has been damaged.

- ❑ If the set does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the set to normal operation.

- ❑ When the set exhibits a distinct change in performance, it indicates a need for service.

Servicing

Do not attempt to service the set yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Replacement Parts

When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.

Unauthorized substitutions may result in fire, electric shock or other hazards.

Safety Check

Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition, and to so certify. When the set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the set.

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Introducing the FD Trinitron Wega

Overview

This chapter defines the contents of your Wega TV and provides an overview of how to set up and use basic features.

Topic	Page
Presenting the FD Trinitron Wega	2
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Presenting the FD Trinitron Wega

The FD Trinitron Wega (pronounced VAY-GAH) is characterized by outstanding contrast, uncompromising accuracy, and corner-to-corner detail.

You'll recognize the superiority of Wega technology almost immediately. The first thing you'll notice is minimal glare from the flat picture tube. This flat-screen technology improves picture detail without distortion, unlike conventional curved screens. The FD Trinitron delivers outstanding image detail not only at the screen center, but also at the corners — so you can enjoy a bright, clear picture from any location in a room.

Features

Some of the features that you will enjoy with your new TV include:

- **DRC Mode (Digital Reality Creation):** Unlike conventional line doublers, the DRC feature doubles vertical and horizontal lines, resulting in four times the density for quality sources such as DVD, Satellite and Digital camcorder.
- **Cinemotion:** Provides an optimized display by automatically detecting film content and applying a reverse 3/2 pulldown process. Moving pictures will appear clearer and more natural-looking.
- **Twin View™:** Using Multi-Image Driver (MIDX), Twin View allows you to watch two programs side by side, with the ability to zoom in one picture. You can watch pictures from two different sources simultaneously.
- **16:9 Enhancement:** Vertical Compression technology that maximizes picture resolution on "anamorphic" or "enhanced for widescreen" sources, including selected DVDs.
- **Velocity Modulation:** Vertical line enhancement that sharpens picture definition.
- **Steady Sound:** Equalizes volume levels so there is consistent output between programs and commercials.
- **Parental Control:** V-Chip technology allows parents to block unsuitable programming for younger viewers.
- **Component Video Inputs:** Offers the best video quality for DVD (480p, 480i), and Digital Set-top box (HD1080i) connections.
- **S VIDEO Inputs:** Provides a high-quality video signal from connected equipment.
- **Favorite Channel Preview:** Preview up to eight favorite channels without leaving the current channel.

Package Contents

Along with your new Trinitron TV, the packaging box contains a remote control and two AA batteries. These items are all you need to set it up and operate the TV in its basic configuration.

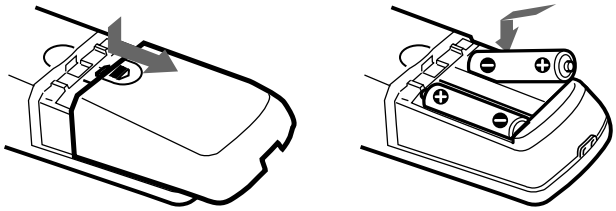
Most peripherals come with the necessary cables to connect them. If you want to set up special configurations, you may need to buy extra cables or connectors. It is best to ensure that you have all needed materials on hand before beginning a special-connection project.

Using the Remote Control

The remote control is the primary mechanism for controlling your TV. Handle the remote control with care; avoid dropping it, getting it wet, placing it in direct sunlight, near a heater, or where the humidity is high.

Inserting Batteries

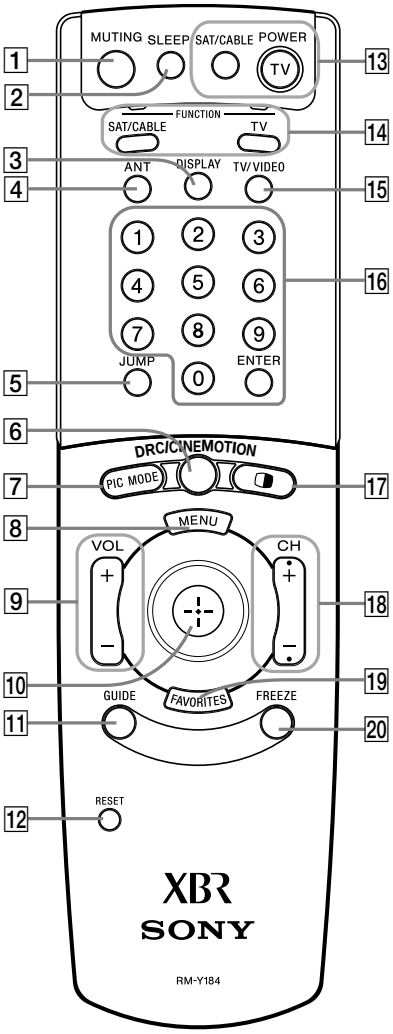
Insert two size AA (R6) batteries (supplied) by matching the + and – on the batteries to the diagram inside the battery compartment.



Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.

The following table describes the buttons on the remote control that are for more advanced functions.

Button Descriptions



	Button	Description
1	MUTING	Press to mute the sound. Press again or press VOL + to restore the sound.
2	SLEEP	Press repeatedly until the TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the TV to remain on before shutting off automatically. Cancel by pressing until SLEEP OFF appears. While Sleep feature is set, press once to view remaining time.
3	DISPLAY	Press once to display the current time and channel label (if set) and channel number. Press again to turn Display off. See page 46 for details on setting the time.
4	ANT	Changes between the VHF/UHF input to the AUX input.
5	JUMP	Press to jump back and forth between two channels. The TV alternates between the current channel and the last channel that was selected.
6	DRC/ CINEMOTION	For high quality sources (i.e., DVD player, Satellite Receiver), this button cycles through the available high-resolution picture modes: Interlaced, Progressive, Cinemotion. Also available in the Video menu. For details, see “Selecting Video Options” on page 36.
7	PIC MODE	Cycles through the available video picture modes: Vivid, Standard, Movie, Pro. Also available in the Video menu. For details, see “Selecting Video Options” on page 36.
8	MENU	Press to display the TV on-screen menu. Press again to exit from the menus.
9	VOL +/-	Adjusts the volume.
10		Joystick allows for movement of the on-screen cursor. Pressing down on the center of the joystick selects the item.
11	GUIDE	Displays the satellite program guide.
12	RESET	Press when in a menu to reset the settings to the factory defaults.
13	POWER buttons (GREEN)	Turn on and off the TV and SAT/CABLE equipment you have programmed into the remote control. For instructions, see “Programming the Remote Control” on page 50.
14	FUNCTION buttons	Select the equipment (TV or SAT/CABLE) that you want to operate. The indicator lights up momentarily when pushed to show which device the remote control is operating.

To scan rapidly through the channels, press and hold down the CH+ or CH- button.

	Button	Description
15	TV/VIDEO	Cycles through the video equipment connected to you TV's video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5, VIDEO 6.
16	0 – 9 and ENTER	Press 0 - 9 to select a channel, the channel changes after 2 seconds. Press ENTER to select immediately.
17		Turns on / off Twin View. For details, see "Using Twin View" on page 31.
18	CH +/–	Scan through channels.
19	FAVORITES	Displays the Favorite Channels list. For details, see "Using Favorite Channels" on page 30.
20	FREEZE	Freezes the window picture. Press again to restore the picture.

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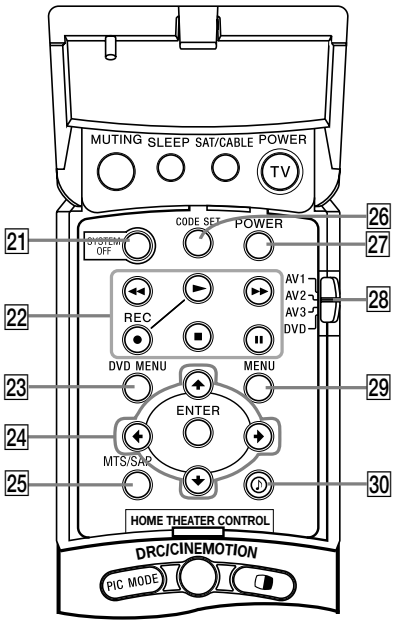

21	SYSTEM OFF	Powers off all Sony equipment at once. (This feature may not work with older Sony equipment.)
22	VCR/DVD CONTROLS	
	◀◀	Rewind
	REC	Record
	▶▶	Fast-forward
	▶	Play
	■	Stop
	❚❚	Pause
23	DVD MENU	Displays the DVD Disc menu
24	◎ ◎ ◎ ◎ and ENTER	Used for DVD on-screen menu movement and selection
25	MTS/SAP	Cycles through the Multi-channel TV Sound (MTS) options: Stereo, Auto-SAP (Second Audio Program), and Mono. For details, see “Using the Audio Menu” on page 38.
26	CODE SET	Used for programming the remote control to operate non-Sony video equipment. For details, see “Programming the Remote Control” on page 50.
27	POWER button (GREEN)	Turn on and off the VCR / DVD equipment you have programmed into the remote control. For instructions, see “Programming the Remote Control” on page 50.
28	AV1 AV2 AV3 DVD	Use to switch control for connected video equipment. You can program one video source for each switch position. (For details, see “Programming the Remote Control” on page 50.)
29	MENU	Used for DVD player setup menu.
30	♪	Switches Steady Sound on / off. For details, see page 38.

Installing the TV

Overview

This chapter includes illustrated instructions for setting up your TV.

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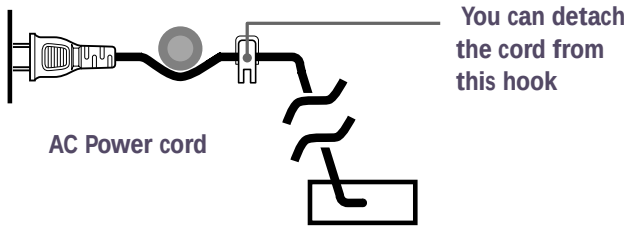
Note About the AC Power Cord

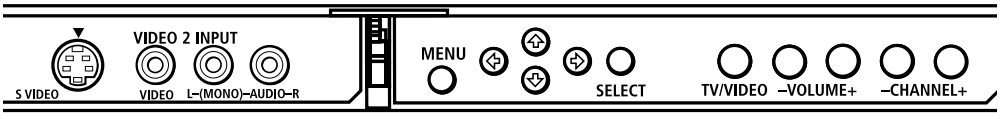
The AC power cord is attached to the rear of the TV with a hook. Use caution when removing the AC plug from its holder. Gently slide the plug in the upward direction to remove from hook. Once removed, the AC power plug should automatically disengage from its stored location.



TV Controls and Connectors

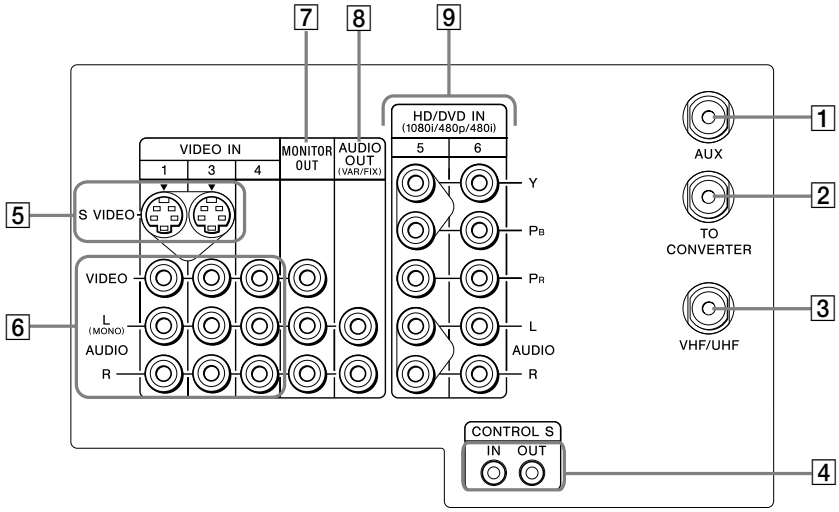
Front Panel Menu Controls

The front panel menu controls allow access to the on-screen menus without the use of a remote control. Pressing the MENU button brings up the on-screen menus. The arrow buttons move the on-screen cursor in the menus and the SELECT button selects the menu item.



(Illustrations in this manual are based upon the KV-32 / 36XBR450; the front panel of the KV-40XBR700 is functionally the same, but has slight cosmetic differences.)

TV Rear Panel



Connection	Description
1 AUX	Allows you to view local and cable channels if your cable provider does not feature local channels. You can switch between local and cable channels by pressing ANT on the remote control. Devices connected to the AUX input can be viewed only in the Twin View left picture.
2 TO CONVERTER	This is a VHF / UHF OUT jack that lets you set up your TV to switch between scrambled channels (through a cable box) and normal cable channels (CATV). Use this jack instead of a splitter to get better picture quality when switching between scrambled and unscrambled cable channels.

	Connection	Description
3	VHF/UHF	Connects to your VHF/UHF antenna or cable.
4	CONTROL S IN/OUT	Allows the TV to receive (IN) and send (OUT) remote control signals to other Sony infrared-controlled audio or video equipment.
5	S VIDEO	Connects to the S VIDEO OUT jack of your VCR or other S VIDEO-equipped video equipment. Provides better picture quality than the VHF/UHF jacks or the Video IN jack.
6	VIDEO/AUDIO [L(MONO)/R]	Connect to the audio and video OUT jacks on your VCR or other video equipment. A video input (VIDEO 2) is located on the front panel of the TV. The Audio and Video IN jacks provide better picture quality than the VHF/UHF IN jack.
7	MONITOR OUT	Lets you record the program you are watching to a VCR. When two VCRs are connected, you can use your TV as a monitor for tape-to-tape editing (not available with 480p or 1080i when the input is to VIDEO 5 or 6).
8	AUDIO OUT (VAR/FIX) L (MONO)/R	Connect to the left and right audio inputs of your audio or video equipment.
9	HD/DVD IN (1080i/480p/480i)	Connect to your DVD player's or Digital Set-top box's component video (Y, P_B, P_R) and audio (L/R) jacks.

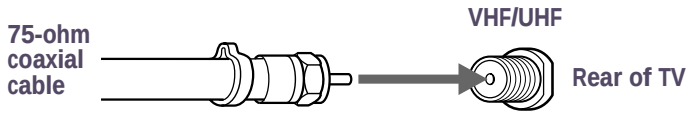
Basic Connection (Connecting Cable TV or Antenna)

Connecting Directly to Cable or to an Antenna

The connection you choose depends on the cable found in your home.

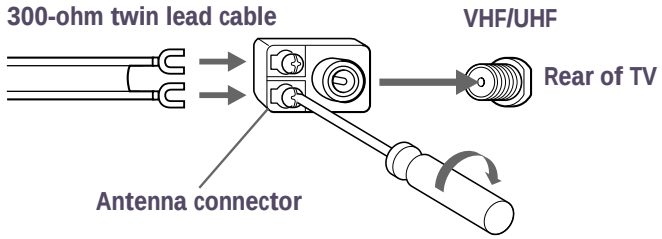
Newer homes are usually equipped with standard coaxial cable:

VHF Only or VHF/UHF or Cable



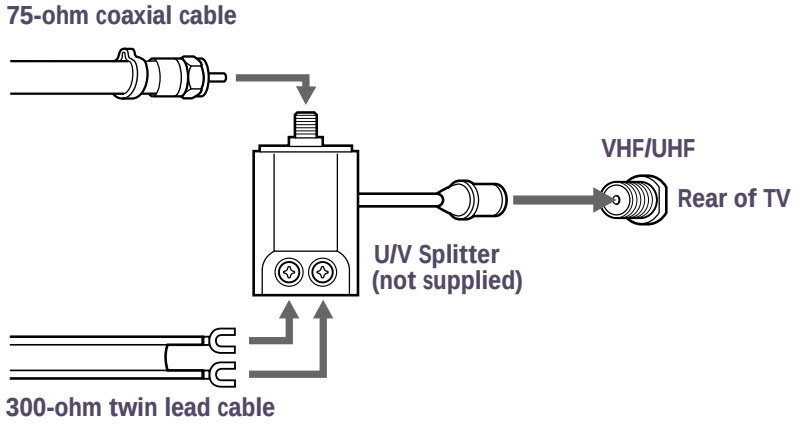
Older homes may have 300-ohm twin lead cable:

VHF Only or UHF Only or VHF/UHF



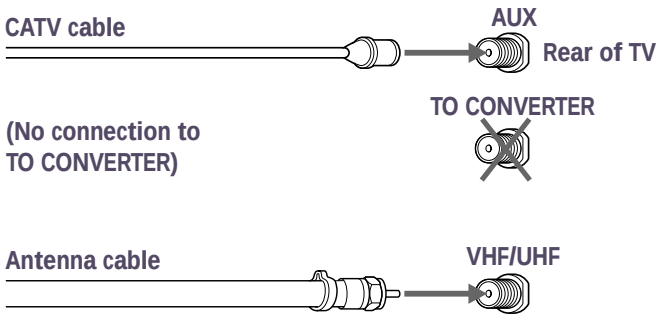
Some homes may have both:

VHF and UHF



Cable and Antenna

If your cable provider does not feature local channels, you may find this set-up convenient.



Select CABLE or antenna (ANT) mode by pressing ANT on the remote control.

To receive channels using an antenna, instead of the CATV cable:

1. Select antenna mode by pressing ANT on the remote control.
2. Turn the cable to OFF (see page 40).
3. Perform the Auto Program function (see page 40).

Cable Box Connections

Cable Box and Cable

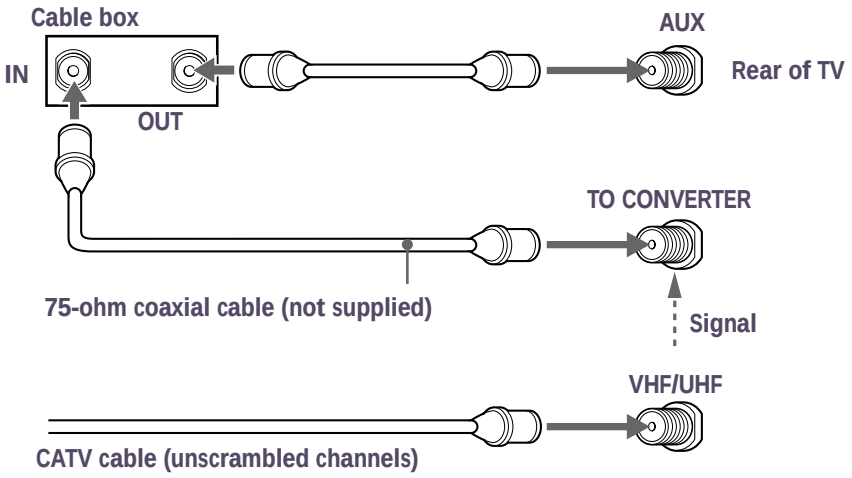
This is the preferred basic cable TV hookup to use if your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels), so you need to use a cable box.

With this setup you can:

- Use the TV remote control to change channels using your cable box when the signal is scrambled.
- Use the TV remote control to change channels using your TV when the signal is not scrambled. (Your TV's tuner provides a better signal than the cable box.)
- Use the Twin View feature. (When all channels are routed through your cable box, only one signal is sent to the TV, so you can not use the Twin View feature.)
- Use the Twin View feature normally with the CATV input.
- Use the Twin View feature partially with the cable box. (When you switch the TV input to AUX - to use the cable box - the unscrambled picture from the cable box will display. You can display the signal from both AUX and VHF/UHF inputs in the left Twin View picture, but you can display only the signal from the VHF/UHF input in the right Twin View picture.

To set up your TV to use both a Cable Box and a direct-connect CATV cable:

1. Connect the Cable TV cable to the TV's VHF/UHF jack.
2. Using a coaxial cable, connect the TV's TO CONVERTER jack to the cable box's IN jack. The TV's internal converter allows you to switch between unscrambled signals coming straight into the TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.
3. Using a coaxial cable, connect the cable box's OUT jack to the TV's AUX jack.



To switch between channels from Cable Box and channels coming directly into TV

- ❑ Press the ANT button on the TV remote control.

To use the TV remote control to switch channels on the cable box

- ❑ Program the remote control as necessary. (See "Programming the Remote Control" on page 50.)

To use the cable box

- ❑ Have your TV tuner set to channel 3 or 4 (as appropriate) and then use the Cable Box to change channels.

To prevent the accidental switching of TV channels

- ❑ When using the VCR or Cable Box, you can use the Channel Fix feature to lock in a channel. The Channel Fix feature is under the Channel menu. (See "Using the Channel Menu" on page 40.)

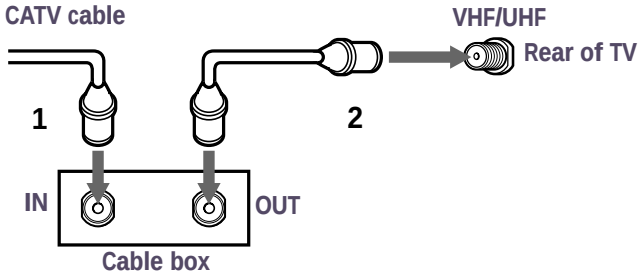
Cable Box Only

Use this hookup if:

- ❑ You subscribe to a cable TV system that uses scrambled or encoded signals requiring a cable box to view all channels, and
- ❑ You do not intend to hook up any other audio or video equipment to your TV.

When all channels are routed through your cable box, only one unscrambled signal is sent to the TV, so you cannot use the Twin View feature. If some channels are scrambled, but others are not, consider using the hookup on page 12 instead.

1. Connect the coaxial connector from your cable service to the cable box's IN jack.
2. Using a coaxial cable, connect the cable box's OUT jack to the TV's VHF / UHF jack.



To use the cable box

- ❑ Have the TV tuner set to channel 3 or 4 (as appropriate) and then use the cable box to change channels.

To use the TV remote control to switch channels on the cable box

- ❑ Program the remote control as necessary. For details, see "Programming the Remote Control" on page 50.

To prevent accidental switching of TV channels

- ❑ Use the Channel Fix feature to lock in a channel. The Channel Fix feature is under the Channel menu. For details, see "Using the Channel Menu" on page 40.

Connecting a VCR and Cable

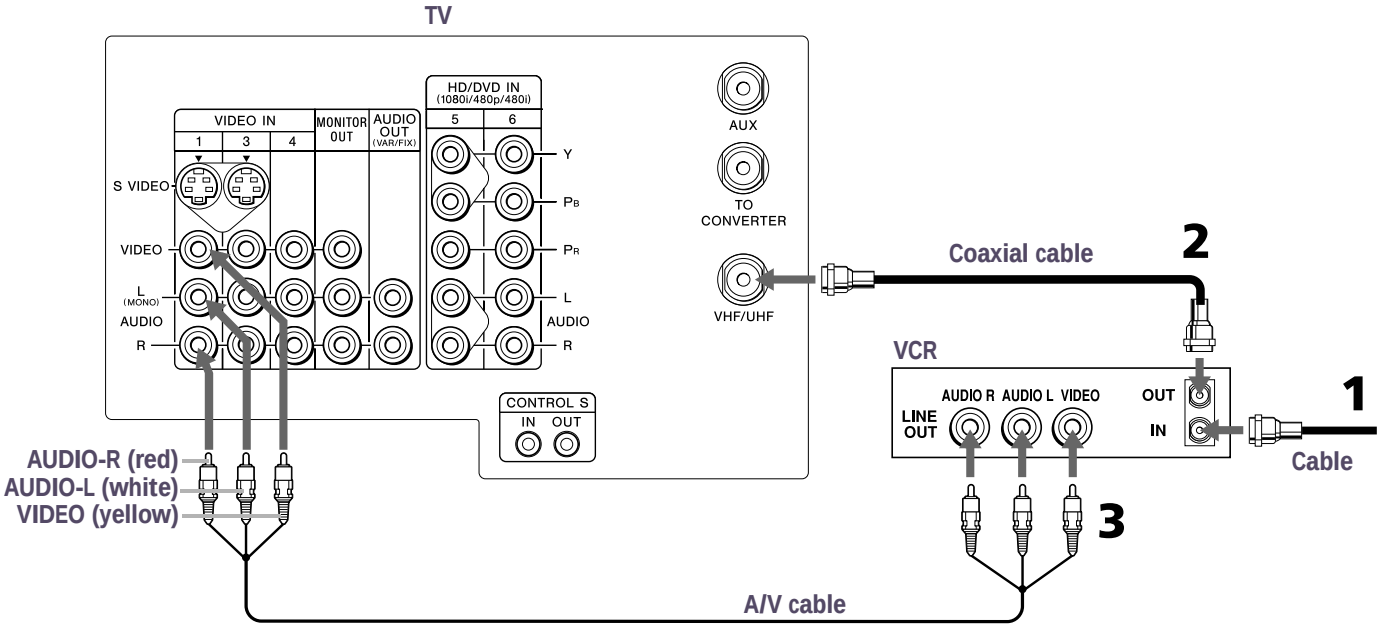
Use this hookup if you have cable TV that does not require a cable box.

1 Connect the cable TV cable to the VCR's IN jack.

2 Using a coaxial cable, connect the VCR's OUT jack to the TV's VHF / UHF jack.

3 Using an A / V cable, connect the VCR's Audio and Video OUT jacks to the TV's Audio and Video IN jacks.

If the VCR you are connecting has an S VIDEO jack, you can use an S VIDEO cable for improved picture quality (compared to a combination audio/video cable). Because an S VIDEO cable carries only the video signal, you will need audio cables for sound.



Connecting a VCR and Cable Box

Use this hookup if:

- Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels), so you need to use a cable box, and
- You want to use the Twin View feature.

With this setup you can:

- Use the TV remote control to change channels using your cable box when the signal is scrambled.
- Use the TV remote control to change channels using your TV when the signal is not scrambled. (Your TV's tuner provides a better signal than the cable box.)
- Use the Twin View feature.
- Record both regular CATV and scrambled channels.

To connect a cable box and a VCR, you will need:

- A small, inexpensive device known as a splitter.
- Three coaxial cables.
- Either a combination audio / video cable, or an S VIDEO cable and audio cables.

1. Connect the CATV cable to the single (input) jack of the splitter.
2. Use a coaxial cable to connect one of the two output jacks of the splitter to the TV's VHF / UHF jack.
3. Use a coaxial cable to connect the other output jack of the splitter to the input jack of the cable box.
4. Use a coaxial cable to connect the output jack of the cable box to the input jack of the VCR.
5. Use the video line (yellow) of a combination audio / video (A / V) cable to connect the video output jack of the VCR to the video input jack of the TV.

> If your VCR has an S VIDEO jack, you can substitute an S VIDEO cable for the video line of an A/V cable. The S VIDEO cable will provide improved video signal quality. (You will need audio cables for sound.)

Connect the left (white) and right (red) audio output channels of the VCR to the respective input channels on the TV.

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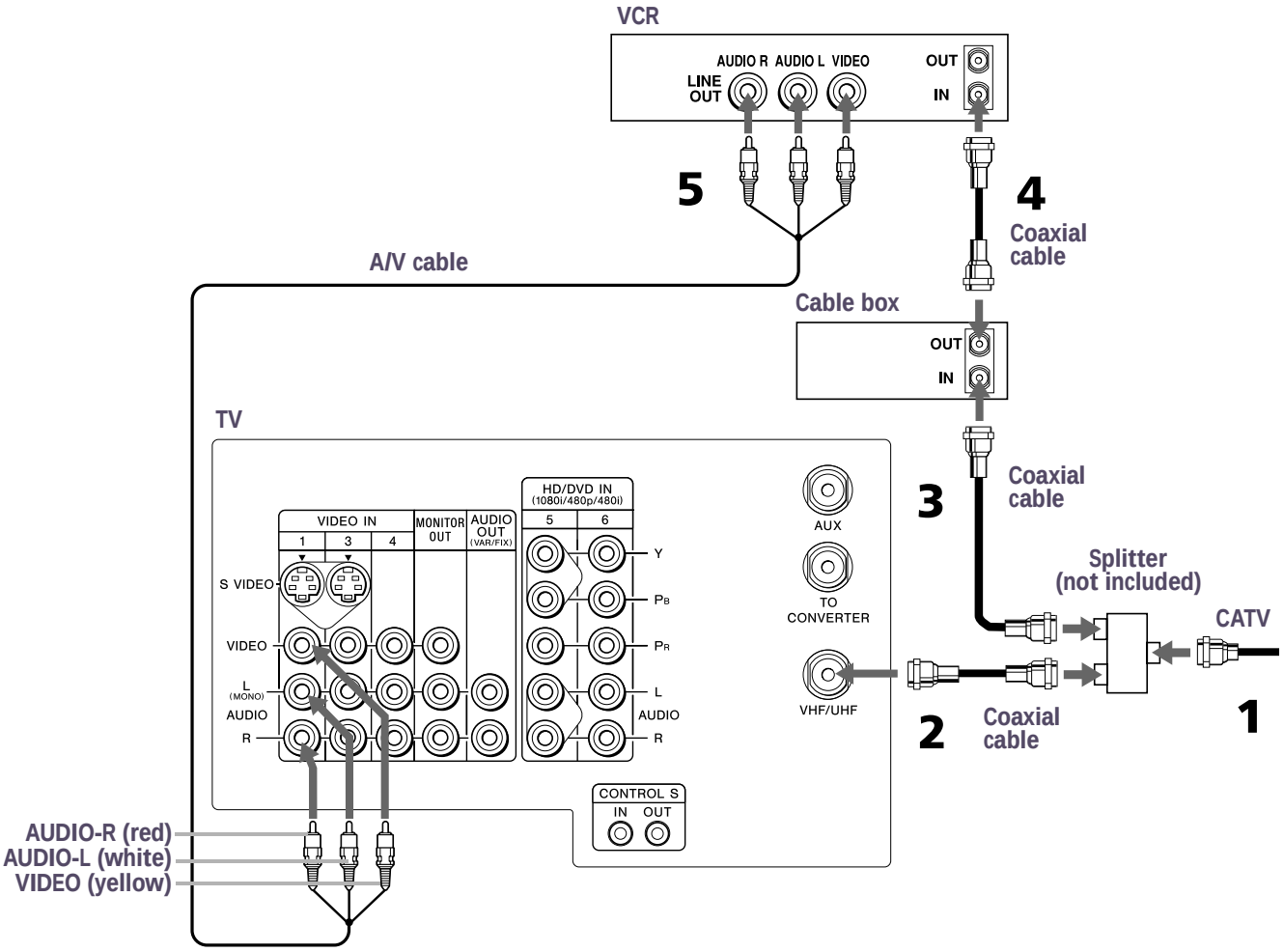


To switch between channels from cable box and channels from CATV

- Press the TV/VIDEO button on the TV remote control.

To view cable box signals

- Match (channel 3 or 4) the channel setting of the VCR IN with the cable box OUT.

To use the TV remote control to change channels on the cable box

- Program the remote control as necessary. (For details, see “Programming the Remote Control” on page 50.) Then use the remote control to change the cable box channels.

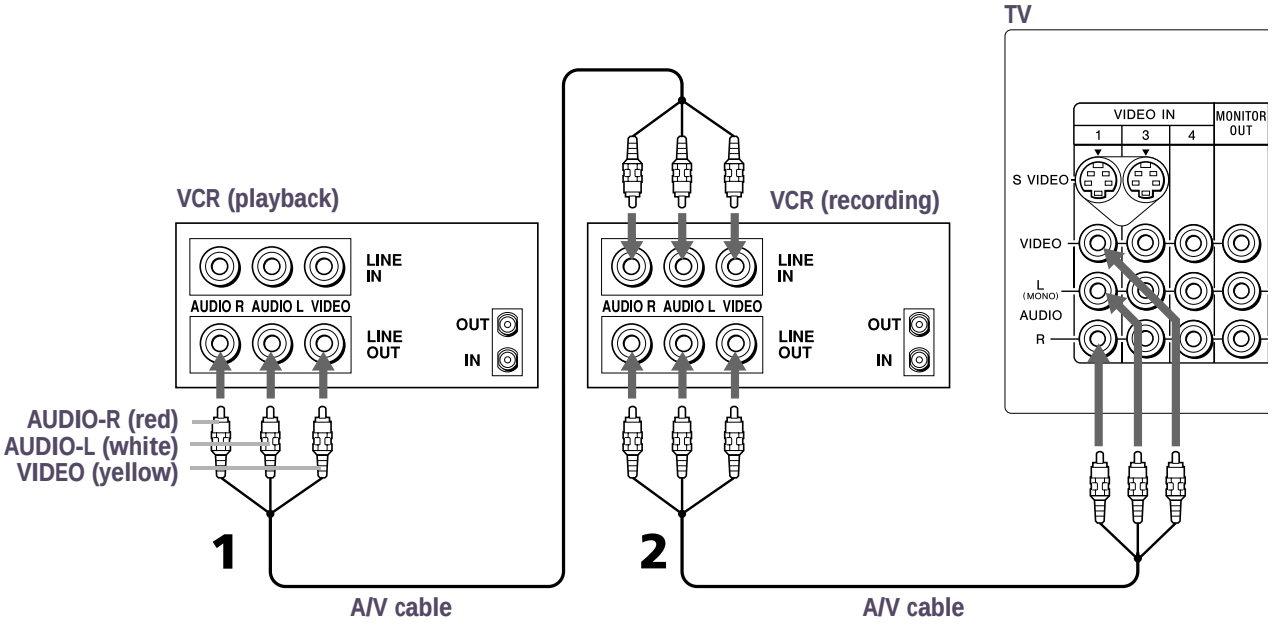
To use Twin View with the cable box

- Turn on the VCR. (The VCR's tuner is used as one of the Twin View picture sources; if you do not turn on the VCR, the Twin View will not work.) Use the remote control's TV/VIDEO button to set the Twin View output to VIDEO 1. Change one Twin View channel by changing channels on the cable box.

Connecting Two VCRs for Tape Editing

If you connect two VCRs, so you can record from one to the other, you can connect the recording VCR into your TV to monitor what is being recorded. The procedure below shows you how to do this.

1. Using an A/V cable, connect the playback VCR's Audio and Video OUT jacks to the recording VCR's Audio and Video IN jacks.
2. Using an A/V cable, connect the recording VCR's Audio and Video IN jacks to the TV's Audio and Video IN jacks.



To change the video input of the VCR

- ❑ See your VCR's user guide for instructions.

To view what is being recorded

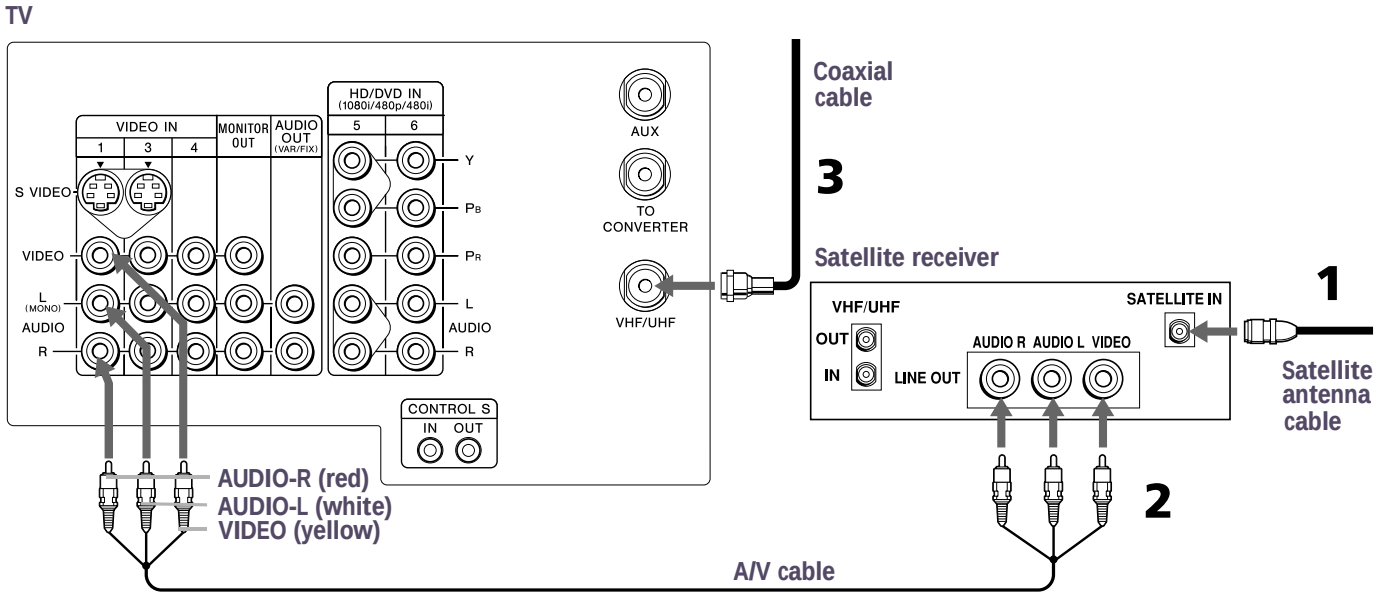
- ❑ Use the remote control to set the TV to the video input to which the recording VCR is connected. (VIDEO 1 in the illustration above.)

If the VCRs you are connecting have S VIDEO jacks, you can use S VIDEO cables for improved picture quality (compared to a combination audio/video cable). Because S VIDEO cables carry only the video signal, you will need audio cables for sound.

Connecting a Satellite Receiver

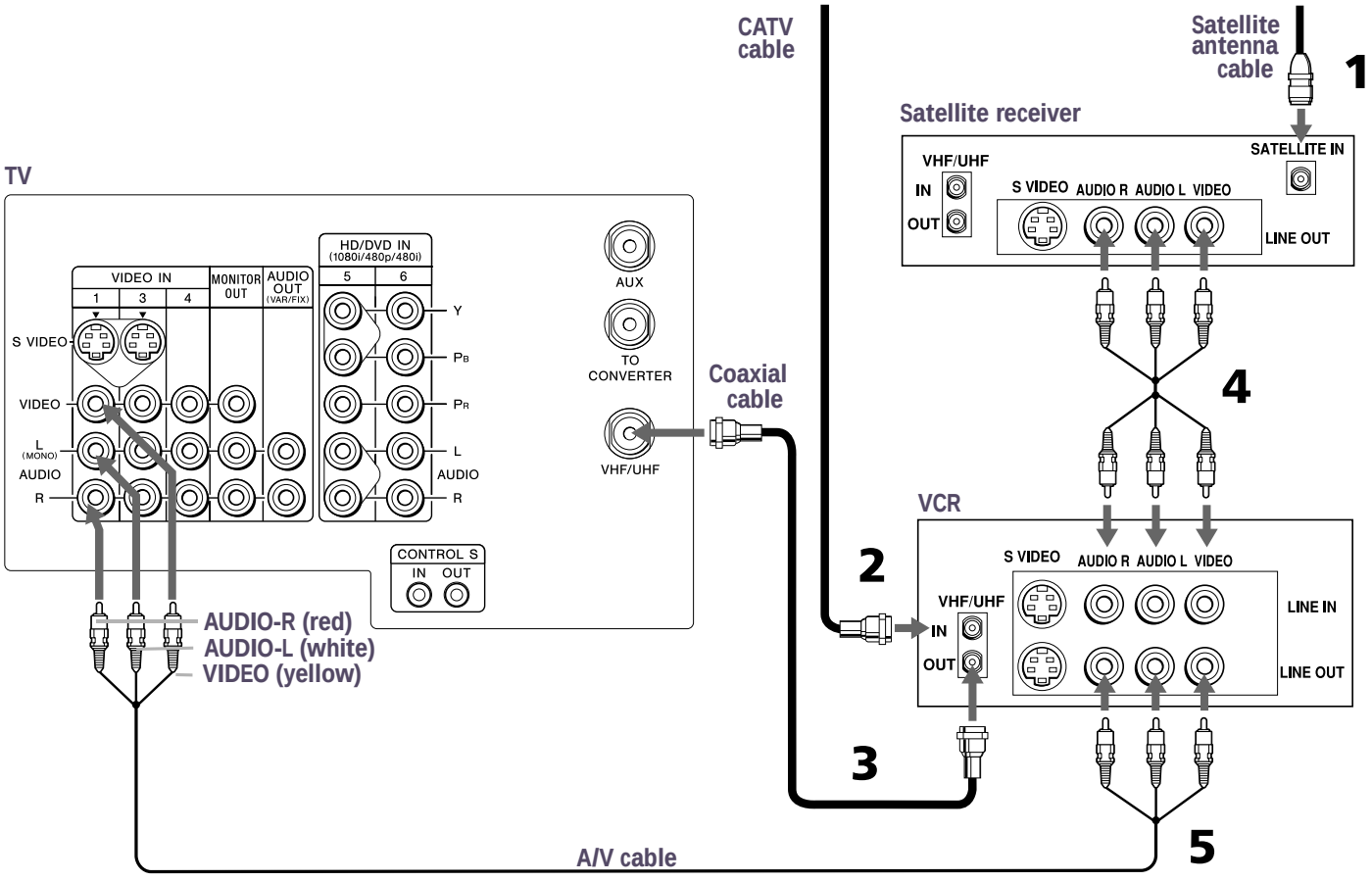
1. Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
2. Using an A/V cable, connect the satellite receiver's Audio and Video OUT jacks to the TV's Audio and Video IN jacks.
3. Connect a coaxial cable from your cable or antenna to the TV's VHF/UHF jack.

If the receiver you are connecting has an S VIDEO jack, you can use an S VIDEO cable for improved picture quality (compared to a combination audio/video cable). Because S VIDEO cables carry only the video signal, you will need audio cables for sound.



Connecting a Satellite Receiver with a VCR

1. Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
2. Connect the CATV cable to the VCR's VHF/UHF IN jack.
3. Using a coaxial cable, connect the VCR's OUT jack to the TV's VHF/UHF jack.
4. Using an A/V cable, connect the satellite receiver's Audio and Video OUT jacks to the VCR's Audio and Video IN jacks.
5. Using an A/V cable, connect the VCR's Audio and Video OUT jacks to the TV's Audio and Video IN jacks.



If the peripherals you are connecting have S VIDEO jacks, you can use S VIDEO cables for improved picture quality (compared to combination audio/video cables). Because S VIDEO cables carry only the video signal, you will need audio cables for sound.

6 If necessary, change the video input on your VCR. (See your VCR's user's guide for instructions on how to do that.)

To watch satellite TV, or the VCR

- Press TV/VIDEO on the remote control to select a video source.

To watch cable TV

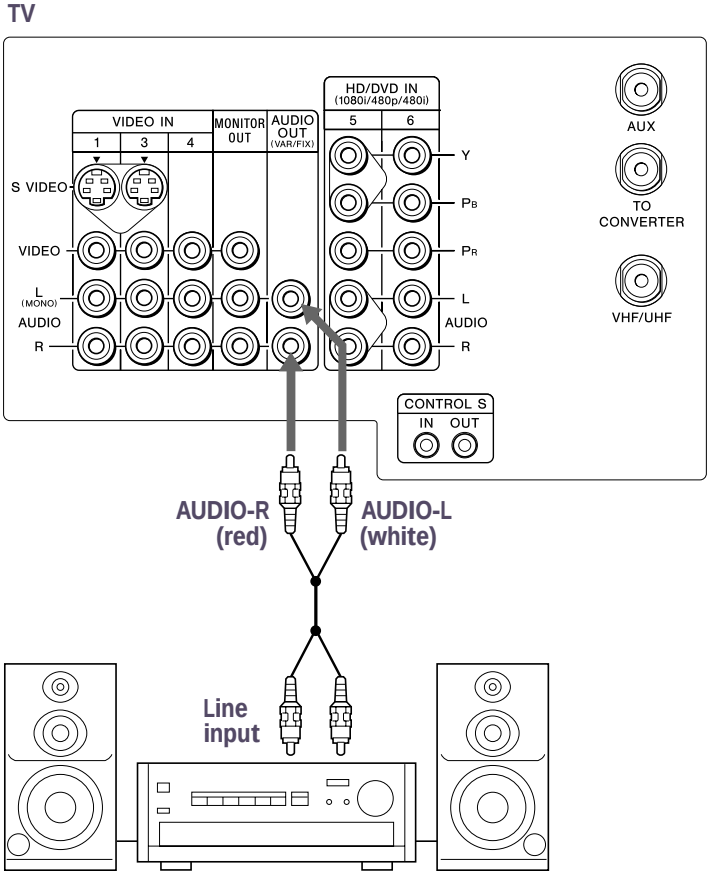
- Press TV/VIDEO on the remote control to select VHF / UHF (to select the CATV cable on the TV).

Connecting an Audio Receiver

For better sound quality, you may want to connect your TV to your stereo system's audio receiver.

To connect to an audio receiver

- ❑ Use audio cables to connect the TV's Audio OUT jacks to the audio receiver's audio LINE IN jacks.



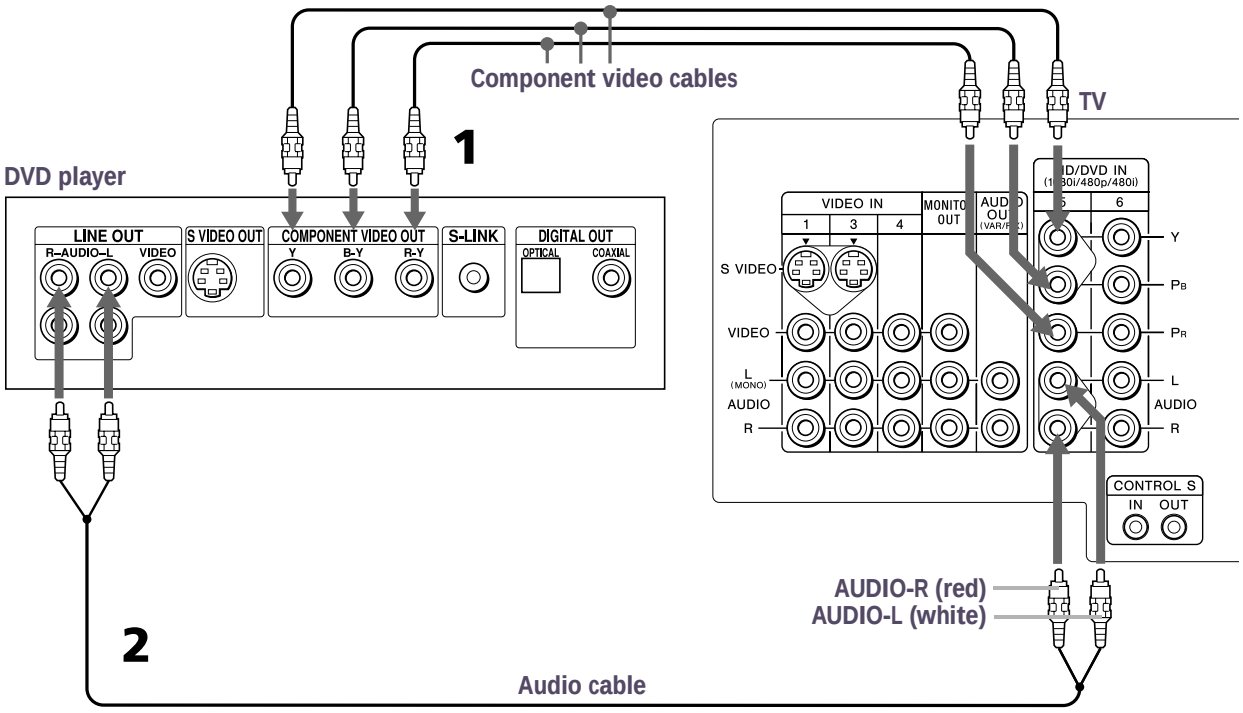
Connecting a DVD Player with Component Video Connectors

This is the preferred hookup to use if your DVD player has component (Y, P_B, P_R) jacks.

1 Using three separate component video cables, connect the DVD player's Y, P_B and P_R jacks to the Y, P_B and P_R jacks on the TV — the number 5 or 6 connections under HD/DVD IN.

> The Y, P_B and P_R jacks on your DVD player are sometimes labeled Y, C_B and C_R, or Y, B-Y and R-Y. If so, connect the cables to like colors.

2 Using an audio cable, connect the DVD player's Audio OUT jacks to the TV's Audio IN jacks. Be sure to use the same column of inputs that you used for the video connection (HD/DVD IN 5 or 6).



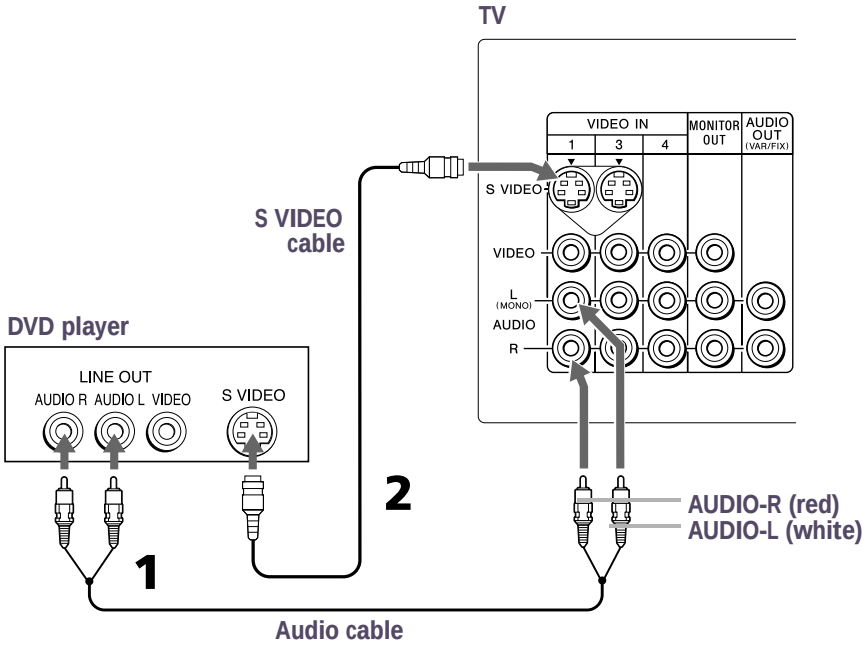
> You cannot use the MONITOR OUT jacks to record the signal from any equipment connected into the Y, P_B, P_R jacks.

Connecting a DVD Player with A/V Connectors

Use this hookup if your DVD player does not have component (Y, PB, PR) jacks.

An S VIDEO connection will give a good-quality video signal, but if your DVD player has component video, that connection (described on the previous page) will give an even better signal.

1. Using audio cables, connect the DVD player's Audio OUT jacks to the TV's Audio IN jacks.
2. Using an S VIDEO cable, connect the DVD player's S VIDEO jack to the TV's S VIDEO jack.



To switch between your TV and DVD

- Use the TV/VIDEO button on the TV's remote control to switch from one input device to another.

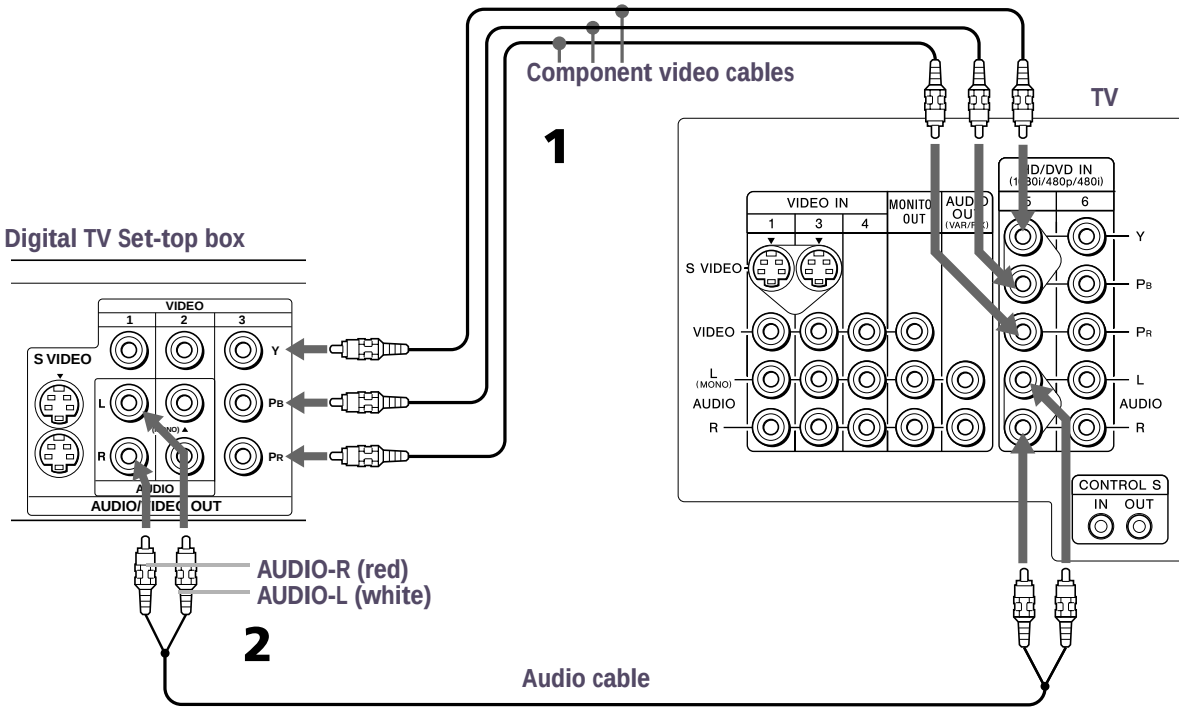
Connecting a Digital TV Receiver

Be sure to read the manual for the Set-top box.

1 Using three separate component video cables, connect the Digital TV Set-top box's Y, P_B and P_R jacks to the TV.

If you prefer, you can use an S VIDEO cable instead of the Y, P_B and P_R connections. The Y, P_B and P_R connections will provide the best-quality picture, but you cannot record the signal from any equipment connected to the Y, P_B and P_R inputs.

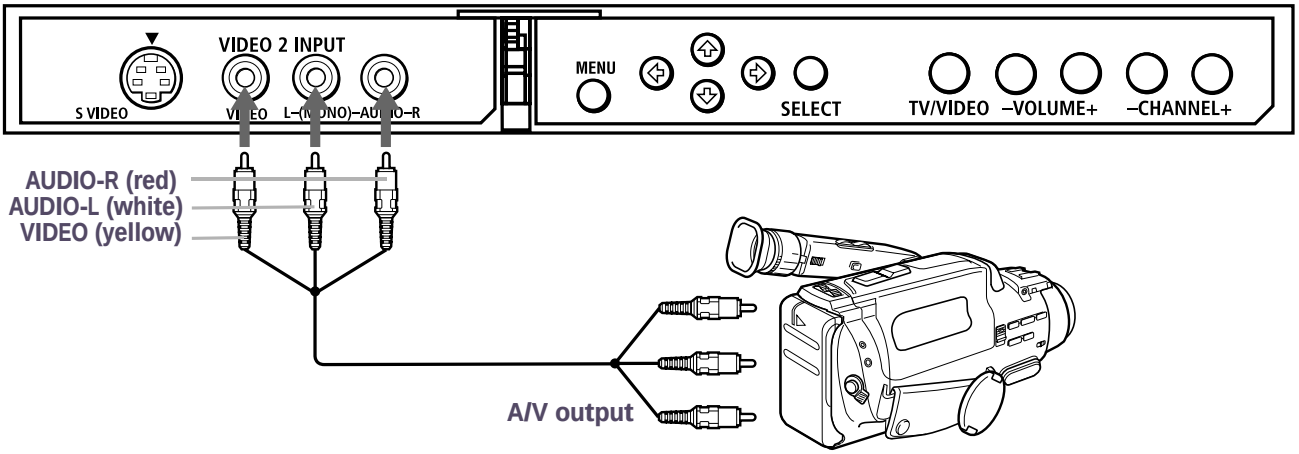
2 Using an audio cable, connect the Digital TV Set-top box's Audio OUT jacks to the TV's Audio IN jacks.



Connecting a Camcorder

For easy connection of the camcorder, the TV has front Audio and Video inputs (shown below). If you prefer, you can connect the camcorder to the TV's rear Audio and Video IN jacks.

1 Using A/V cables, connect the camcorder's Audio and Video OUT jacks to the TV's Audio and Video IN jacks.



(Illustrations in this manual are based upon the KV-32/36XBR450; the front panel of the KV-40XBR700 is functionally the same, but has slight cosmetic differences.)

If you have a mono camcorder, connect its audio output to the TV's AUDIO L jack.

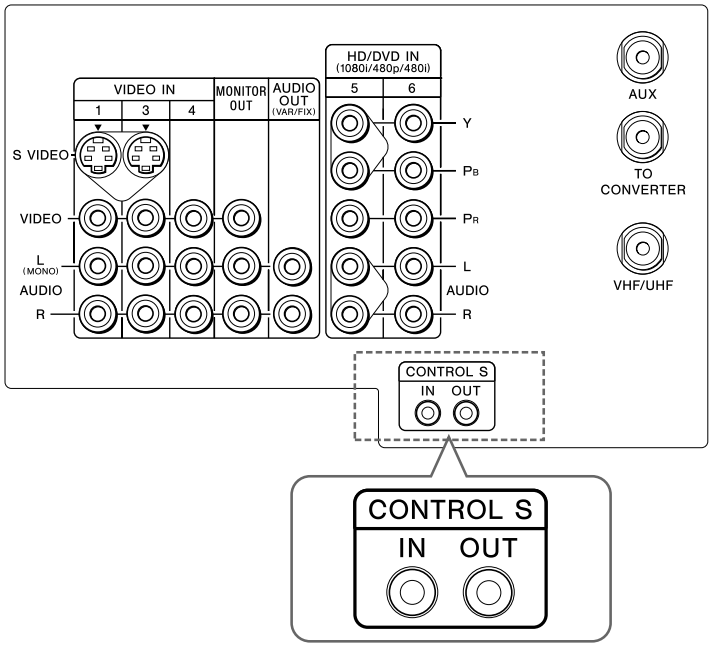
If the camcorder you are connecting has an S VIDEO jack, you can use an S VIDEO cable for improved picture quality (compared to a combination audio/video cable). Because S VIDEO cables carry only the video signal, you will also need audio cables for sound.

To view the camera's output

- Use the TV/VIDEO button on the front panel of the TV (or on the remote control) to set the TV to the video input to which the camcorder is connected. (VIDEO 2 in the illustration above.)

Using the CONTROL S Feature

The CONTROL S feature allows you to control your TV, plus other Sony equipment (such as a DVD player or VCR) connected to the TV, using only the TV's remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.



Setting Up the TV Automatically

After you finish connecting your TV, you can run Auto Setup to set up your channels. The Auto Setup screen appears when you turn your TV on for the first time after installing it. If you do not want to set up the channels at this time, you can do it later by using the Auto Program feature in the Channel menu (see page 40 for information regarding Channel menu).

The Auto Setup feature does not apply for installations that use a cable box for all channel selection.

Using Auto Setup

1. Turn on the TV.
2. Press the TV FUNCTION button on the remote control.
3. Press CH+ to run Auto Setup.
4. After Auto Setup has run, press CH– to exit.

Reset TV to Factory Settings

To reset your TV to the factory settings

1. Turn on the TV.
2. Hold down the RESET button on the remote control.
3. Press and release the POWER button on the TV. (The TV will turn itself off, then back on.)
4. Release the RESET button.

Using the Features

Overview

This chapter describes how to use features of your TV.

Topic	Page
Using Favorite Channels	30
Using Twin View	31
Using the Freeze Function	34

Using Favorite Channels

The Favorite Channel feature lets you select programs from a list of favorite channels that you previously specified.

To display a list of your favorite channels:

1. If you have not already done so, create a list of favorite channels. (For information on setting up Favorite Channels see “Selecting Channel Options” on page 40.)
2. Press the FAVORITES button on the remote control.

3. Move the joystick ↑ or ↓ to highlight the channel you want to watch. The program on that channel appears in the preview window.
4. Press the ⊕ button to select the channel.

Using Twin View

Twin View lets you see two pictures — from an antenna, a VCR, a DVD, etc, — on the screen at the same time. (You can only hear the sound associated with one of the pictures however. You choose which picture's sound is selected.) You can change the relative size of each of the pictures.

Displaying Twin Pictures

To display twin pictures

1 Press the ◑ button on your remote control. (A second picture-window appears.)

2 To cancel twin pictures

- Press the ◑ button
  or
- Press the ⊕ button.

Activating the Picture

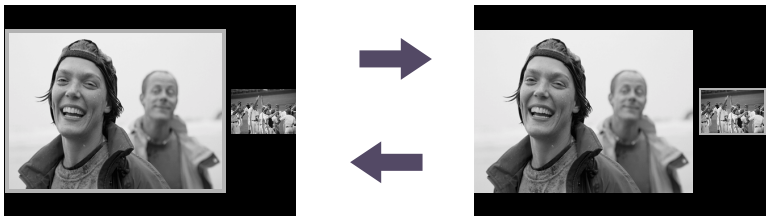
With Twin View, the picture highlighted with a blue frame is active. In the active picture, you can:

- Change channels
- Adjust the volume.
- Switch the input sources (to go from UHF/VHF to CATV cable, for example, press TV/VIDEO on the remote control).
- Change the picture size by pressing ↑/↓ on the joystick.

Normally the TV memorizes the last-used sizes; when Twin VIew is turned off, then back on, the last-used sizes are displayed. If you are using the enhanced 16:9 picture, however, the aspect ratio changes to 4:3 in Twin View, and the picture is reformatted to that ratio.

To activate the right picture

- Move the joystick to the right (without pressing down on it).



To activate the left picture

- Move the joystick to the left (without pressing down on it).

Factors affecting Twin View include:

- Equipment connected to the AUX and HD/DVD IN (numbers 5 and 6) inputs cannot be displayed in the right Twin View picture.

Changing the Picture Size

The zoom feature lets you vary the relative size of the left and right pictures.

1. Activate the picture whose size you want to change.
2. Press ↑ on the joystick to enlarge the picture.
3. Press ↓ on the joystick to make the picture smaller.

When you adjust the twin screen sizes, the TV memorizes the change. The next time you use the Twin View function, the memorized sizes appear.

Using the Freeze Function

The FREEZE button allows you to temporarily capture a program's picture. You can use this feature to write down information such as phone numbers, recipes, etc.

The FREEZE feature works only in normal view; if you are in Twin View, it will not work.

To use the FREEZE function

1. When the program information you want to capture is displayed, press the FREEZE button, on the remote control.
2. The TV switches to Twin View mode and displays the "frozen" picture on the right, while the current program continues on the left.

3. To cancel and return to normal viewing, press the FREEZE button.

Using the Menus

Overview

Opening and choosing a menu:

1. Press the MENU button to display the Menu screen.
2. Move the joystick to the desired menu icon and press ⊕ to select it.
3. Use the joystick to scroll through the features.
4. See the specific menu page for instructions on moving through the menu.

The Menu gives you access to the following features:

Menu Icon	Description	Page
	VIDEO allows you to make adjustments to your picture settings. It also allows you to customize the Picture Mode based on the type of program you are viewing.	36
	AUDIO offers enhanced audio options such as listening to second audio programming (SAP), or customizing the effect of the sound on your TV.	38
	CHANNEL allows you to set up a Favorite Channel list, run the Auto Program function, and more.	40
	PARENT lets you control the viewing of programs based on their ratings.	42
	TIMER lets you set the clock on your TV and allows you to program your TV for scheduled viewing using the Timers.	46
	SETUP provides several options for setting up your channels, labeling your video inputs, and selecting the language of the on-screen menus.	47

To end a menu session:

Press MENU button again.

To end one menu session and move to another:

Move the joystick upward to return to the menu icons.
Move the joystick to choose the next menu icon and press ⊕ to select it.

Using the Video Menu

To select the Video Menu

1. Press MENU.
2. Move the joystick to the Video icon and press ⊕.
3. Use the joystick to scroll through the features.
4. Press ⊕ to select a feature. That feature's adjustment appears.
5. Use the joystick to make the desired adjustments.
6. Press ⊕ to select the desired adjustment.
7. Press MENU to exit the menu screen.

To restore the factory default settings for Picture, Brightness, Color, Hue, and Sharpness, Color Temp and VM.

❑ Press RESET on the remote control when in the Video menu.

Selecting Video Options

To change from one Video Mode to another, use the PICTURE MODE button on the remote control.

The Video Menu includes the following options.

Option	*Description*	
Mode *Customized picture viewing*	Vivid	Select for enhanced picture contrast and sharpness.
	Standard	Recommended for normal viewing conditions.
	Movie	Select for soft, film like, picture.
	Pro	Select for professional monitor like appearance.
	You can alter the Video Menu settings (Picture, Brightness, Color, etc.) for each Mode.	
Picture	Adjust to increase picture contrast and deepen the color or decrease picture contrast and soften the color.	
Brightness	Adjust to brighten or darken the picture.	
Color	Adjust to increase or decrease color intensity.	
Hue	Adjust to increase or decrease the green tones.	
Sharpness	Adjust to sharpen or soften the picture.	

Option	Description	
Color Temp *White intensity adjustment*	Choose from three color temperatures:	
	Cool	Select to give the white colors a blue tint.
	Neutral	Select to give the white colors a neutral tint.
	Warm	Select to give the white colors a red tint (NTSC-Standard).
VM *Velocity Modulation*	Sharpens picture definition to give every object a sharp, clean edge. Select from High, Medium, Low, Off.	
DRC mode *Digital Reality Creation mode*	Creates a high-resolution picture with 4x density, for high quality sources (i.e., DVD player, Satellite receiver). Select from Interlaced, Progressive, or CineMotion.	
	Interlaced	Recommended for moving pictures.
	Progressive	Recommended for still images and text.
	CineMotion	Provides an optimized display by automatically detecting film content and applying a reverse 3/2 pulldown process. Moving pictures will appear clearer and more natural-looking.

Using the Audio Menu

To select the Audio Menu

1. Press MENU.
2. Move the joystick to the Audio icon and press ⊕.
3. Use the joystick to scroll through the options.
4. Press ⊕ to select an option. That option's settings appear.
5. Use the joystick to make the desired adjustments.
6. Press ⊕ to select the desired adjustment.
7. Press MENU to exit the menu screen.

To restore the factory default settings for Treble, Bass, and Balance

❑ Press RESET on the remote control when in the Audio menu.

Selecting Audio Options

The Audio Menu includes the following options:

Option	Description	
Treble	Adjust to increase or decrease higher-pitched sounds.	
Bass	Adjust to increase or decrease lower-pitched sounds.	
Balance	Adjust to emphasize left or right speaker balance.	
Steady Sound	ON	Select to stabilize the volume.
	OFF	Select to turn off Steady Sound.
Effect	TruSurround	Select for surround sound (for stereo programs only).
	Simulated	Adds a surround-like effect to mono programs.
	OFF	Normal stereo or mono reception.

Option	Description	
MTS *Enjoy stereo, bilingual and mono programs*	Stereo	Select for stereo reception when viewing a program broadcast in stereo.
	Auto-SAP	Select to automatically switch the TV to second audio programs when a signal is received. (If no SAP signal is present, the TV remains in Stereo mode.)
	Mono	Select for mono reception. (Use to reduce noise during weak stereo broadcasts.)
Speaker	ON	Select to turn on the TV speakers.
	OFF	Select to turn off the TV speakers and listen to the TV's sound only through your external audio system speakers.
Audio Out *Easy control of volume adjustments*	This option can be set only when the Speaker option is set to OFF.	
	Variable	Sound output varies according to the TV settings. Useful when you want to use the TV's remote control to adjust the output through a separate audio system.
	Fixed	Sound output is held at a fixed level. Use your audio receiver's remote control to adjust the volume.

Using the Channel Menu

To select the Channel Menu

1. Press MENU.
2. Move the joystick to the Channel icon and press ⊕.
3. Use the joystick to scroll through the features.
4. Press ⊕ to select a feature. That feature's options appear.
5. Use the joystick to scroll through the options.
6. Press ⊕ to select the desired option.
7. Press MENU to exit the menu screen.

Selecting Channel Options

The Channel Menu includes the following options:

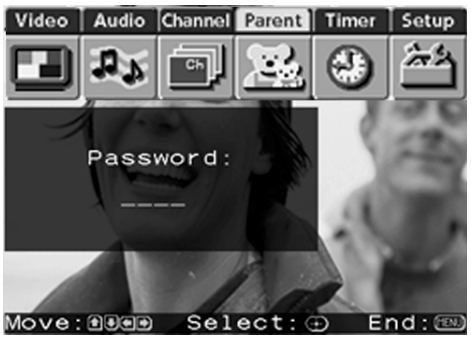
Option	Description	
Favorite Channel	1 Press ⊕ to select a favorite channel number. 2 Use the joystick to scroll through the channels until you find the channel you want to add to your favorites. 3 Press ⊕ to select it.	
Cable	ON	Select if you are receiving cable channels with a CATV cable.
	OFF	Select if you are using an antenna.
	You should run Auto Program after changing the cable setting.	
Channel Fix *Useful when you have a cable box or satellite receiver connected*	2-6	"Fix" your TV's channel setting to 3 or 4 and use the cable box, VCR or satellite receiver to change channels. Select one of these settings if you have connected the device to the VHF/UHF jack.
	AUX 2-6	Same as 2-6, except you select one of these settings if you have connected the device to the AUX jack (see page 8).
	VIDEO 1	Use this setting if you have connected the device to the Audio and Video IN jacks.
Auto Program	Automatically programs the TV for all receivable channels from both VHF/UHF and AUX inputs.	

Option	Description
Channel Skip/Add	Removes and adds viewable channels. 1 Use the joystick to scroll through the channels until you find the channel you want to skip / add. 2 Press ⊕ to select it. 3 Press the joystick (▲ / ▼) to toggle between "Add" and "Skip." 4 Press ⊕ to select.
Channel Label	Label up to 20 channels with their station call letters.

Using the Parent Menu

The Parent menu allows you to set up the TV to block programs according to their content and rating levels. These ratings are assigned by a federal rating board. Not all programs are rated. Using the Parental Lock blocks programs with a specific rating, but it does not block an entire channel.

To select the Parent Menu



1. Press MENU.
2. Move the joystick to the Parent icon and press ⊕.
3. Use the 0-9 buttons on the remote control to enter your four-digit password.
4. Confirm your password by entering it again. (The Parent menu options appear.)
5. Use the joystick to scroll through the settings.
6. Press ⊕ to select the desired option.
7. Press MENU to exit the menu screen.

> You need your password for any future access into the Parent menu. If you lose your password, see “Lost password” on page 56.

Using the Parent Menu

If you are not familiar with the Parental Guideline rating system, you should select Child, Youth, or Young Adult to help simplify the rating selection. To set more restrictive ratings, select Custom.

For descriptions of Child, Youth, and Young Adult ratings, see page 44.

The Parent menu includes the following options.

Option	Description	
Parental Lock *Turn ratings on/ off and select a rating system*	OFF	Parental lock is off. No programs are blocked from viewing.
	Child	Maximum ratings permitted are: ❏ US: TV-Y, TV-G, G ❏ Canada: TV-Y, C, G
	Youth	Maximum ratings permitted are: ❏ US: TV-PG, PG ❏ Canada: TV-PG, PG, 8 ans+
	Young Adult	Maximum ratings permitted are: ❏ US: TV-14, PG-13 ❏ Canada: TV-14, 14+, 13 ans+
	Custom	Select to set ratings manually. ❏ US: See page 44 for details. ❏ Canada: See page 45 for details.
Change Password	For changing your password.	

US Models: Selecting Custom Rating Options

For US models, the Custom Rating Menu includes the following options. (For Canadian models, see page 45.)

Option	Description	
Movie Rating	G	All children and General Audience.
	PG	Parental Guidance suggested.
	PG-13	Parental Guidance for children under 13.
	R	Restricted viewing, parental guidance is suggested for children under 17.
	NC-17 and X	No one 17 and under allowed.
TV Rating *Block programs by their rating, content or both*	Age-Based Options	
	TV-Y	All children.
	TV-Y7	Directed to older children.
	TV-G	General Audience.
	TV-PG	Parental Guidance suggested.
	TV-14	Parents Strongly cautioned.
	TV-MA	Mature Audience only.
	Content-Based Options	
	FV	Fantasy Violence.
	D	Suggestive Dialogue.
	L	Strong Language.
	S	Sexual situations.
	V	Violence.
Unrated *Block programs or movies that are broadcast without a rating*	Block	Blocks all programs and movies that are broadcast without a rating.
	Allow	Allows programs and movies that are broadcast without a rating.

The content ratings will increase depending on the level of the age-based rating. For example, a program with a TV-PG V (Violence) rating may contain moderate violence, while a TV-14 V (Violence) rating may contain more intense violence.

To ensure maximum blocking capability, the age-based ratings should be blocked.

If you block unrated TV programs, be aware that the following types of programs may be blocked: emergency broadcasts, political programs, sports, news, public service announcements, religious programs and weather.

Canadian Models: Selecting Custom Rating Options

For Canadian models, the Custom Rating Menu includes the following options. (For US models, see page 44.)

Option	Description	
English Rating	C	All children.
	C8+	Children 8 years and older.
	G	General programming.
	PG	Parental Guidance.
	14+	Viewers 14 and older.
	18+	Adult programming.
French Rating	G	General programming.
	8 ans+	Not recommended for young children.
	13 ans+	Not recommended for ages under 13.
	16 ans+	Not recommended for ages under 16.
	18 ans+	Programming restricted to adults.
USA Rating	See “US Models” on page 44 for details.	

Viewing Blocked Programs

You can view a blocked program by entering the password. Press the ENTER button when tuned to a blocked program, and then enter the password. This temporarily switches off the Parental Lock. To reactivate the Parental Lock settings, turn off the TV. When the TV is turned on again, your Parental Controls settings are reactivated.

Using the Timer Menu

To select the Timer menu

1 Press MENU.

2 Use the joystick to move to the Timer icon and press ⊕.

To set the Current Time

1 Use the joystick to select "Current Time", then press ⊕.

2 If it is currently Daylight Savings Time, be sure to set that mode to "ON". (Daylight Savings Time starts in the Spring and ends in the Fall.)

3 Use the joystick to enter the correct time, then press ⊕.

4 Press MENU to exit the menu screen.

To set the Timer

Before setting the timer, be sure to set your TV's clock to the current time (and, if appropriate, Daylight Savings Mode). To check the TV's time setting, press the DISPLAY button on the remote control.

1 Move the joystick to "Timer 1" or "Timer 2", then press ⊕.

2 Use the joystick to enter your date, time and channel preferences, then press ⊕ to select each one.

3 Press MENU to exit the menu screen.

To reset the Clock or Timers

❑ Press RESET on the remote control after selecting that option in the Timer menu. This resets to the factory defaults.

Selecting Timer Options

The Timer Menu includes the following options:

Option	*Description*	
Timer 1 Timer 2	Program	Select to set the Timer by day, time, duration, and channel.
	OFF	Select to turn off the Timer. (Your previous settings will be saved.)
Current Time	Set the current time.	
Daylight Savings	ON	Select in the spring to turn on this mode during Daylight Saving Time.
	OFF	Select in the fall to turn of this mode at the end of Daylight Saving Time.

Using the Setup Menu

To select the Setup Menu

1. Press MENU.
2. Use the joystick to move to the Setup icon

and press ⊕.
3. Use the joystick to scroll through the features.
4. Press ⊕ to select a feature. (That feature's options appear.)
5. Use the joystick to scroll through the options.
6. Press ⊕ to select the desired option.
7. Press MENU to exit the menu screen.

Selecting Setup Options

The Setup Menu includes the following options:

Option	Description	
Caption Vision	Allows you to select from three closed-caption modes (for programs that are broadcast with closed caption).	
	CC1, CC2, CC3, CC4	Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)
	TEXT1, TEXT2, TEXT3, TEXT4	Displays network / station information presented using either half or the whole screen (if available). For closed captioning, set to CC1.
	XDS (Extended Data Service)	Displays a network name, program name, program length, and time of the show (if the broadcaster offers this service).
	OFF	Turns off Caption Vision.

(Continued on the next page)

(Continued from the previous page)

Option	Description	
Video Label	Allows you to label the audio / video equipment you connected to the TV, so you can identify it when using the TV/VIDEO button. When in the Setup menu's Video Label feature, use the joystick to highlight an input to label, then press ⊕ to select it. Use the joystick to scroll through the labels. Press ⊕ to select the equipment you connected to each of the input jacks on the back of your TV. Select "Skip" if you do not have any equipment connected to a particular set of input jacks.	
	VIDEO 1/2/3/4	VHS, 8mm, Beta, LD, Game, SAT, DVD, Web, Receiver, DTV, Skip
	VIDEO 5/6	HD, DVD, DTV, Skip
	✍ If you select "Skip", your TV skips this connection when you press the TV/VIDEO button.	
Tilt Correction	Allows you to correct any tilt of the picture.	
Language	Select to display all on-screen menus in your language of choice.	
16:9 Enhanced	Provides enhanced picture resolution for widescreen sources, such as selected DVD titles (only available when the TV is in VIDEO mode). Press TV/VIDEO and select from one of the following options:	
	AUTO	To activate automatically when a 16:9 signal is received.
	ON	To activate manually.
Demo	Runs a demonstration of on-screen menus.	

💡 To use this feature with widescreen DVDs, set your DVD player to 16:9 aspect ratio.

✍ AUTO/ON will appear when TV is in video mode 1-6.
ON/OFF will appear when TV is in VIDEO mode 5-6 and the 480p signal occurs.

Other Information

Overview

This chapter includes the following topics:

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Programming the Remote Control	50
Operating Other Equipment with Your TV Remote Control	53
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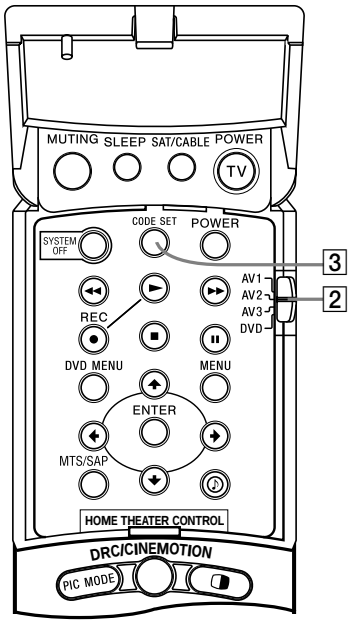
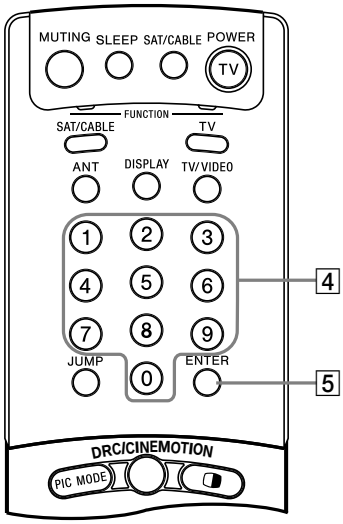
Programming the Remote Control

The remote control is preset to operate Sony brand video equipment.

Sony Equipment	Switch Position on Remote Control	Programmable Code Number
Beta, ED Beta VCRs	AV1	303
8 mm VCR	AV2	302
VHS VCR	AV3	301
DVD Player	DVD	751

If you have video equipment other than Sony brand that you want to control with the TV's remote control, use the following procedures to program the remote control.





The equipment must have infrared (IR) remote capability in order to be used with the remote control.

1. Check the list of the "Manufacturer's Codes" listed on page 52, and find the three-digit code number for the manufacturer's code for your equipment. (If more than one code number is listed, start with the number listed first.)
2. Open the cover of the remote control and move the slide switch to the desired equipment type.
3. Press CODE SET and close the cover of the remote control.

   You must do step 4 within 10 seconds of step 3, or you must redo steps 2 and 3.

4. Enter the three-digit manufacturer's code number.
5. Press ENTER.
6. To check if the code number works, aim the TV's remote control at the equipment and press the green POWER button that corresponds with that equipment. If it responds, you are done. If not, try using another code listed for that manufacturer.

Tips

- If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some cases, you may not be able to operate your equipment with the Sony remote control. In such cases, use the equipment's own remote control unit.
- Whenever you remove the batteries to replace them, the code numbers may revert to the factory setting and must be reset.

Manufacturer's Codes

VCRs

Manufacturer	Code
Sony	301, 302, 303
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305,338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Minolta	305, 304
Mitsubishi / MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Orion	317
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA / PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Shintom	315
Signature 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314. 336, 338, 337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

Laserdisc Players

Manufacturer	Code
Sony	701
Panasonic	704, 710
Pioneer	702

DVD Players

Manufacturer	Code
Sony	751
GE	755
Hitachi	758
JVC	756
Magnavox	757
Mitsubishi	761
Oritron	759
Panasonic	753
Philips	757
Pioneer	752
RCA / PROSCAN	755
Samsung	758
Toshiba	754
Zenith	760

Cable Boxes

Manufacturer	Code
Sony	230
Hamlin / Regal	222, 223, 224, 225, 226
Jerrold / G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Satellite Receivers

Manufacturer	Code
Sony	801
Dish Network	810
Echostar	810
General Electric	802
Hitachi	805
Hughes	804
Mitsubishi	809
Panasonic	803
RCA / PROSCAN	802, 808
Toshiba	806, 807

Operating Other Equipment with Your TV Remote Control

Operating a VCR

Open the cover of the remote control and move the slide switch to the AV input you coded for the VCR.

To Do This ...	Press
Turn on / off	green POWER button (under the cover)
Change channels	CH +/-
Record	► and REC simultaneously.
Play	►
Stop	■
Fast forward	►►
Rewind the tape	◄◄
Pause	▮▮
Search the picture forward or backward	►► or ◄◄ during playback (release to resume normal playback)

Operating a DVD Player

Open the cover of the remote control and move the slide switch to the AV input you coded for the DVD player.

To Do This ...	Press
Turn on / off	green POWER button (under the cover)
Play	►
Stop	■
Pause	▮▮
Step through different tracks of an audio disc	►► to step forward or ◄◄ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH- to step backward
Display the DVD menu	DVD MENU
Display the menu (Setup)	MENU

Operating a Cable Box

To Do This ...	Press
Turn on / off	SAT/CABLE (green POWER button)
Select cable box	SAT/CABLE (FUNCTION button)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP

Operating a Satellite Receiver

To Do This ...	Press
Turn on / off	SAT/CABLE (green POWER button)
Select satellite receiver	SAT/CABLE (FUNCTION button)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP
Display channel number	DISPLAY
Display SAT guide	GUIDE
Display SAT menu	MENU
Move highlight (cursor)	Joystick
Select item	⊕ button

Operating an MDP (Laserdisc Player)

Open the cover of the remote control and move the slide switch to the AV input you coded for the MDP.

To Do This ...	Press
Turn on / off	green POWER button (under the cover)
Play	►
Stop	■
Pause	❚❚
Search the picture forward or backward	►► or ◄◄ during playback (release to resume normal playback)
Search a chapter forward or backward	CH +/-

Troubleshooting

Problem	Possible Remedies
No picture (screen not lit), no sound	❏ If your TV does not turn on, and a red light keeps flashing, your TV may need service. Call your local Sony Service Center. ❏ Make sure the power cord is plugged in. ❏ Push the power button on the front of the TV. ❏ Check to see if the TV / VIDEO setting is correct: when watching TV, set to TV; when watching connected equipment, set to VIDEO 1, 2, 3, 4, 5 or 6, as appropriate. ❏ Try another channel; it could be station trouble.
Remote control does not operate	❏ Batteries could be weak. Check the batteries and replace as necessary. ❏ Press TV (FUNCTION) when operating your TV. ❏ Make sure the TV's power cord is connected securely to the wall outlet. ❏ Locate the TV at least 3-4 feet away from fluorescent lights. ❏ Check the orientation of the batteries.
Dark, poor or no picture (screen lit), good sound	❏ Adjust the Picture setting in the Video menu (see page 36). ❏ Adjust the Brightness setting in the Video menu (see page 36). ❏ Check antenna / cable connections.
Good picture, no sound	❏ Press MUTING so that "MUTING" disappears from the screen (see page 4). ❏ Make sure Speaker is set to ON in the Audio menu (see page 38).
Cannot receive upper channels (UHF) when using an antenna	❏ Change Cable to OFF (see page 40). ❏ Use Auto Program in the Channel menu to add receivable channels that are not presently in memory (see page 40).
No color	❏ Adjust the Color settings in the Video menu (see page 36).
Only snow and noise appear on the screen	❏ Check the antenna / cable connections. ❏ Try another channel (it could be station trouble). ❏ Press ANT to change the input mode (see page 40).
Dotted lines or stripes	❏ Adjust the antenna. ❏ Move the TV away from noise sources such as cars, neon signs, or hair-dryers.
TV is fixed to one channel	❏ Use Auto Program in the Channel menu to add receivable channels that are not presently in the TV's memory (see page 40). ❏ Check your Channel Fix settings (see page 40).
Double images or ghosts	❏ Use a highly directional outdoor antenna or a cable (if the problem is caused by reflections from nearby mountains or tall buildings).
Cannot operate menu	❏ If the item you want to choose appears in gray, you cannot select it.
Cannot receive any channels when using cable TV	❏ Use Auto Program in the Channel menu to add receivable channels that are not presently in the TV's memory (see page 40). ❏ Check your cable settings. ❏ Make sure Cable is set to ON in the Channel menu (see page 40).

Problem	Possible Remedies
Cannot gain enough volume when using a cable box	❏ Increase the volume of the cable box using the cable box's remote control. Then press TV (FUNCTION) and adjust the TV's volume.
Cannot receive channels	❏ Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 40).
Unable to select a channel	❏ Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 40).
Lost password	❏ In the password screen (see page 42), enter the following master password: 4357. The master password clears your previous password; it cannot be used to temporarily unblock channels.
Cannot change channels with the remote control	❏ Be sure you have not inadvertently switched your TV from channel 3 or 4 setting if you are using another device to change channels. ❏ If you are using another device to control channels, be sure the "function" button for that device has been pressed.
Cannot cycle through the other video equipment connected to the TV	❏ Be sure the Video Label feature has not been set to Skip (see page 48).
There is a black box on the screen	❏ You have selected a text option in the Setup menu and no text is available. (See page 47 to reset Setup selections.) To turn this feature off, select OFF in the Caption Vision option. If you were trying to get closed captioning, select CC1 instead of Text 1-4.
There is no twin picture or it is just static	❏ Be sure your twin picture is set to a video source / channel that has a program airing. ❏ You may be tuned to a video input with nothing connected to it. Try cycling through your video inputs using the TV/VIDEO button. ❏ Twin View is not set to receive a signal from the AUX input. If you have connected a VCR or satellite receiver to the AUX input on the TV, it will not show in the right picture.
I get the same program in both Twin View pictures	❏ Both may be set to the same channel. Try changing channels in either the left or right picture. ❏ You may be running all your channels through a cable box. The cable box will only unscramble one signal at a time. If possible, run a direct cable to your TV's VHF / UHF input. (This will only work if your cable system provides an unscrambled signal.)
I cannot get anything but TV channels in my left or right Twin View picture	❏ Be sure the video label has not been set to skip your video inputs. See the Setup menu on pages 47 and 48.

If, after reading these operating instructions, you have additional questions related to the use of your Sony television, please call our Customer Information Services Center at 1-800-222-SONY (7669) (U.S. residents only) or 1-877-899-7669 (Canadian residents only).

Specifications

All Models (General)

Picture Tube	FD Trinitron® tube	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC, American TV Standard	
Channel Coverage		
VHF	2-13	
UHF	14-69	
CATV	1-125	
Power Requirements	120V, 60 Hz	
Number of Inputs/Outputs		
Video (IN)	4	1 Vp-p, 75 ohms unbalanced, sync negative
S Video (IN)	3	Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms
Audio (IN)	6	500 mVrms (100% modulation) Impedance: 47 kilohm
Audio (OUT)	1	More than 408 mVrms at the maximum volume setting (Variable) More than 408 mVrms (Fixed) Impedance (output): 2 kilohms
Monitor Out	1	1 Vp-p, 75 ohms unbalanced, sync negative
CONTROL S (IN/OUT)	1	
Component Video Input	2 (Y, P_B, P_R)	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative; P_B: 0.7 Vp-p, 75 ohms P_R: 0.7 Vp-p, 75 ohms

KV-32XBR450

Supplied Accessories	
Remote Control	RM-Y184
AA (R6) Batteries	2 supplied for remote control
Optional Accessories	
AV Cable	VMC-810/820/830 HG
Audio Cable	RKC-515HG
S-LINK Cable	RK-G69HG
Component Video Cable	VMC-10/30 HG
TV Stand	SU-32XBR45 (also SU-32HS2 in Canada)
Visible Screen Size	32 in (812.8 mm) picture measured diagonally
Actual CRT Size	34 in (863.4 mm) picture measured diagonally
Speaker Output	15W x 2
Dimensions (W x H x D)	898.0 x 678.0 x 579.5 mm (35 3/8 x 26 3/4 x 22 7/8 in)
Mass	84 kg (185 lbs)
Power Consumption	
In Use	245 W
In Standby	2 W

KV-36XBR450

Supplied Accessories	
Remote Control	RM-Y184
AA (R6) Batteries	2 supplied for remote control
Optional Accessories	
AV Cable	VMC-810/820/830 HG
Audio Cable	RKC-515HG
S-Link Cable	RK-G69HG
Component Video Cable	VMC-10/30 HG
TV Stand	SU-36XBR45 (also SU-36HS2 in Canada)
Visible Screen Size	36 in (914 mm) picture measured diagonally
Actual CRT Size	38 in (965 mm) picture measured diagonally
Speaker Output	15W x 2
Dimensions (W x H x D)	994 x 755 x 622 mm (39 1/4 x 29 3/4 x 24 1/2 in)
Mass	108 kg (238 lbs)
Power Consumption	
In Use	245 W
In Standby	2 W

KV-40XBR700

Supplied Accessories	
Remote Control	RM-Y184
AA (R6) Batteries	2 supplied for remote control
Optional Accessories	
AV Cable	VMC-810/820/830 HG
Audio Cable	RKC-515HG
S-Link Cable	RK-G69HG
Component Video Cable	VMC-10/30 HG
TV Stand	SU-40XBR7
Visible Screen Size	40 in (1,016 mm) picture measured diagonally
Actual CRT Size	42 in (1,067 mm) picture measured diagonally
Speaker Output	15W (subwoofer) 7.5W x 2
Dimensions (W x H x D)	1093 x 836 x 665 mm (43 1/8 x 33 X 26 1/8 in)
Mass	138 kg (304 lbs)
Power Consumption	
In Use	245 W
In Standby	2 W

Design and specifications are subject to change without notice.

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